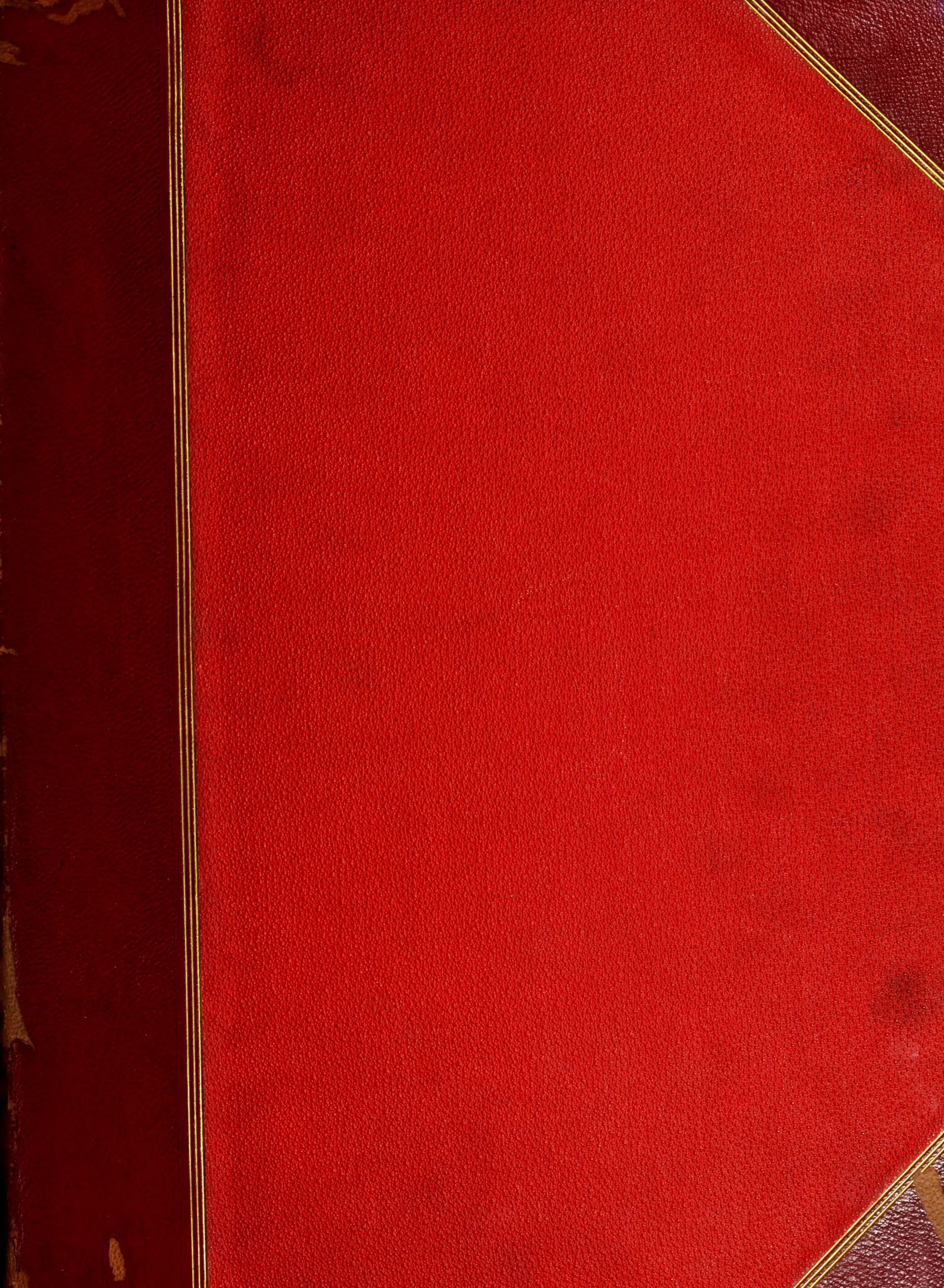




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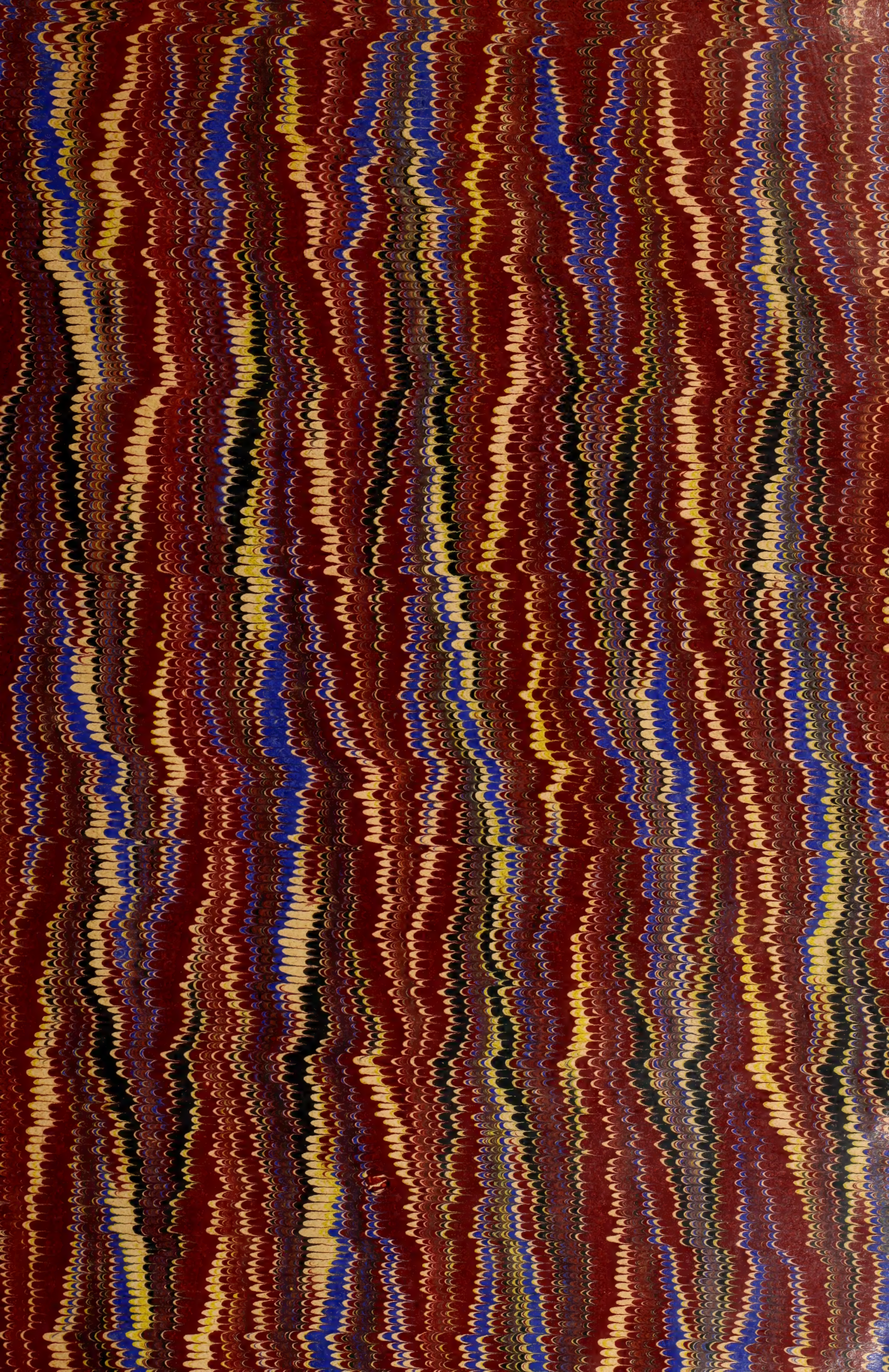
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December 16, 1921.



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PLATE VI.

FAMILY EPIMACHIDÆ.

GENUS PTILORHIS (*Swains*).

OF this genus two species are indigenous to Australia, viz., *P. Paradisea* and *P. Victoriae*.

PTILORHIS PARADISEA (*Swains*).

RIFLE-BIRD.

THERE are few birds in the Australian forest, or indeed in any forest, with more beautiful plumage than the Rifle-bird. This can only be properly appreciated on seeing it in its native state. The principal resort is among the cedar brushes of the rivers of the northern portion of New South Wales, where great numbers may be seen.

It possesses many of the characteristics of the *Climacteres*, particularly in its manner of ascending the trunks of trees. At sunrise it leaves the thickets where it has spent the night, and passes the morning in flying between the tops of the lofty pines and sunning itself. During its flight it makes a peculiar sound, resembling the rustling of a silk dress. Its song consists of a prolonged utterance of the word "Tass," by which name it is called by the aborigines of the Richmond River. The powers of flight are very seldom used except to pass from tree to tree.

The adult male has the general plumage rich velvety-black, glossed on the upper surface with brownish-lilac; under surface similar to the upper, but all the feathers of the abdomen and flanks margined with olive-brown; feathers of the head and throat, small and scale-like; those of the top of the head and the throat, metallic-blue and yellow; those of the side of the head, reddish-purple; two centre tail feathers, rich green, the remainder deep black; bill and feet, black.

The female differs entirely in plumage, having the whole of the upper surface olive-brown; a line passing down the side of the head from behind the eye, buffy-white; throat and under surface, buffy-grey, each feather with a chestnut arrow-shaped mark near the tip.



PTILORHIS PARADISEA (Swains)
Rifle-Bird.

1 Male.
2 Female

G. J. Broinowski Fecit.

PLATE VII.

PTILORHIS VICTORIÆ (*Gould.*)

QUEEN VICTORIA'S RIFLE-BIRD.

THIS variety of Rifle-bird inhabits the north coast of Australia and some of the adjacent small islands. It is smaller than the *Ptilorhis Paradisea*, and differs, though not very much, in plumage.

Mr. Macgillivray, to whom we are indebted for many valuable discoveries, says that he found it in one of the Barnard Isles, which is covered with dense brush. The females and young males were very abundant, but the adult males rare, solitary, and very shy. He mentions that at that time (June) the young birds were so pugnacious that he was able to approach sufficiently near to three who were quarrelling to kill all of them with a single charge of dust-shot.

Unlike the *Ptilorhis Paradisea*, it does not stay much on the trees, but remains chiefly on the bushes and climbing plants beneath them.

The male has the general plumage rich, deep, velvety-black, glossed on the upper surface, sides of the neck, chin and breast with plum colour; feathers of the crown of the head and a portion of the throat small, scale-like, and of a shining, metallic, bronzy-green; feathers of the abdomen very much developed, of the same hue as the upper surface, but each feather so deeply margined with deep olive-green that the colouring of the basal portion of each feather is hidden and the olive-green forms a broad abdominal band, which is sharply defined above, but irregular below; two central tail feathers, rich green, the remainder deep black; bill and feet, black.

The female has all the upper surface greyish-brown, tinged with olive; head and sides of the neck, dark brown, striated with greyish-brown; over each eye a superciliary stripe of buff; wing feathers edged with ferruginous; chin and throat, pale buff; remainder of the under surface, under wing-coverts, and the base of the inner webs of the quills, rich, deep reddish-buff, each feather with an irregular spot of brown near the tip, dilated on the flanks in the form of irregular bars; bill and feet, black.

Total length of male, $10\frac{1}{2}$ inches; bill, $1\frac{3}{4}$ inch; wing, 5 inches; tail, $3\frac{1}{4}$ inches; tarsi, $1\frac{1}{4}$ inch.

GENUS CRASPEDOPHORA (*G. R. Gray.*)

THIS genus was created to include the *Epimachus Magnificus* of Cuvier, which differs from the *Ptilorhes* in form and plumage.

CRASPEDOPHORA MAGNIFICA (G. R. Gray).

MAGNIFICENT RIFLE-BIRD.

NEARLY all the indigenous birds of New Guinea are remarkable for the singularity and beauty of their plumage; and the species under consideration is no exception to the rule. The best specimens have been obtained at Cape York, most of those from New Guinea having been procured from the natives, who deprive it of the wings and feet in order to cook it.

As in the *Ptilorhis Victoriae*, the males of this species are very much more shy than the females and immature birds.

The food consists principally of insects, but in some of the stomachs which were dissected there were found small round berries.

In the breeding season, several white eggs are laid in a hollow tree.

The male has the general plumage, deep velvety-black, slightly tinged with purple; wings, dull purplish-black, glossed with a greenish hue on the margins of the feathers; feathers of the head, small, scale-like, and of a bronzy-green; feathers of the throat, similar in form, and of a shining metallic oil-green, bounded below by a crescent of velvety-black, to which succeeds a narrow crescent of shining yellowish-green; under surface, purplish-black, the flank-feathers prolonged into a filamentous form, and reaching beyond the extremity of the tail; two central tail-feathers, green, the remainder deep black; feet, lead-colour.

The female has all the upper surface brown; wings, reddish-brown, margined with bright rufous; tail, rufous; over each eye a superciliary stripe of buffy-white; throat, buffy-white; breast and under surface, buff, crossed with numerous irregular bars of dark-brown.

Habitats: New Guinea, and the north-eastern portion of Australia.



1. PTILORHIS VICTORIÆ. (Gould)
Queen Victoria's Rifle-Bird.

2. CRASPEDOPHORA MAGNIFICA (G. R. Gra.)
Magnificent Rifle-Bird

PLATE VIII.

GENUS ZOSTEROPS.

MEMBERS of this genus are to be found in almost every part of the Old World, but are most numerous in Australia and the adjacent islands. Australia has three species, Norfolk Island two, and Lord Howe's Island two. In all of them the sexes are alike in plumage.

ZOSTEROPS CÆRULESCENS.

GREY-BACKED ZOSTEROPS.

THE present species resembles greatly, in all general characteristics, *Zosterops Gouldi*. On the eastern and southern coasts of Australia it is very common, frequenting not only the forests, but almost every garden, having even been known to build in shrubs and rose-trees. It, however, prefers to all other trees the *Zeptospermum* (tea-tree), darting among the branches in search of the insects which constitute its food.

It is seen sometimes singly or in pairs, and very often in large numbers.

The breeding season lasts from about the beginning of September till January. The nest, which is very carefully and neatly made and lined, usually contains three eggs, in colour pale blue, eight and a half lines long by six lines broad.

The crown of the head, wings and tail are olive; back, dark-grey; eyes surrounded by a zone of white, which is bounded by black; throat and centre of abdomen, greyish-white, with a slight tinge of olive; flanks, light chestnut; irides, bill, and feet, brownish-grey.

Habitats: New South Wales, South Australia and Tasmania.

ZOSTEROPS LUTEUS (*Gould*).

YELLOW ZOSTEROPS.

THIS species is much more shy and wild than the others belonging to the same genus. It inhabits the northern portions of Australia, where it principally frequents dense thickets, never resorting to the gardens of the settlers, like the *Zosterops Cærulescens*. When disturbed it takes refuge on the high branches of gum trees, where the thick foliage serves as an effectual concealment. It is generally seen in small families of from three to seven or eight.

All the upper surface is olive-green; primaries and tail-feathers, brown; forehead and throat, yellow; lores and lines beneath the eye, black; eye encircled with a white zone; abdomen and under tail-coverts, dull yellow; irides, light brown; legs, feet and bill, bluish-grey.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{1}{2}$ inch; wing, $2\frac{3}{8}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{3}{4}$ inch.

ZOSTEROPS GOULDI (*Bonap.*)

GREEN-BACKED ZOSTEROPS.

THE Green-backed Zosterops is an inhabitant of the coast of Western Australia, where, although endowed with great beauty, it is looked upon with anything but favourable eyes by owners of vineyards and orchards, on account of its fondness for fruit. It particularly affects grapes and figs, so much so, that its local name is the "Grape and Fig-eater." As a proof, however, that it is not entirely fructivorous, Gilbert mentions that he has seen it "taking flies while on the wing, after the manner of the true Flycatchers."

It flies irregularly from tree to tree, never remaining for long in the air.

It utters a single plaintive note, repeated several times.

The breeding season extends from August to November. The nest, which is about two inches wide and one deep, is formed of various grasses, "bound together with the hairy tendrils of small plants and wool, the inside being lined with very minute fibrous roots." The eggs, which are generally three, but sometimes four in number, are greenish-blue, eight lines long by six lines broad.

Lores, black; crown of the head and all the upper surface, olive-green; primaries and tail feathers, brown, with a margin of olive-green; throat and under tail-coverts, light yellow; breast and under surface, grey, tinged with brown on the abdomen and flanks; irides, wood-brown; bill, brown, lighter on the under mandible; legs and feet, dark-grey.

Total length, $4\frac{1}{4}$ inches; bill, $\frac{9}{16}$ inch; wing, $2\frac{1}{8}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{5}{8}$ inch.

Habitat: Western Australia.

ZOSTEROPS TEPHIROPLEURUS (*Gould*).

GREY-BREASTED ZOSTEROPS.

THE Grey-breasted Zosterops, an inhabitant of Lord Howe's Island, bears a great resemblance to the better known Australian specimen, *Zosterops Cærulescens*, differing from it only in its greater size, in having a considerably stronger bill, and the flanks not so highly coloured. In habits and general economy the two birds are very much alike.

This species was first discovered by Mr. Macgillivray and forwarded to England, together with a specimen of *Zosterops Strenuus*, which bird he was also the first to procure.

The head and upper surface are bright olive-green, with a wash of grey across the shoulders; wings and tail, slaty-brown, bordered with olive-green; throat, yellow; round the eyes a circle of white feathers, below which is a mark of black; under surface, pale vinaceous-brown, becoming gradually paler on the lower part of the abdomen, and passing into the pale yellow of the under tail-coverts.

Total length, $4\frac{3}{4}$ inches; bill, $\frac{5}{8}$ inch; wing, $2\frac{2}{5}$ inches; tail, $2\frac{1}{8}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: Lord Howe's Island.

GENUS DICÆUM (*Cuvier*).

ONLY one species has been found in Australia of this genus, which abounds in India and the Indian Islands, and also in New Guinea.

DICÆUM HIRUNDINACEUM.

SWALLOW DICÆUM.

NOTWITHSTANDING the fact that this little bird is one of the most beautiful and at the same time one of the commonest of all those which inhabit Australia, it is very little known. Without doubt the reason of this is that it confines itself almost exclusively to the topmast branches of lofty trees, particularly of the *Casuarinæ*, among whose thick and dark foliage it can remain without fear of detection. Almost the only way in which it can be discovered is by its song, which is very pretty and animated, though it is almost necessary to stand beneath the tree and listen for the sound, so low is it uttered.

The food chiefly consists of insects, but is occasionally varied with fruit and berries.

The nest, which is found suspended from a small branch of a tree—generally a *Casuarina*—is composed of the soft, white, cotton-like substance found in the seed-vessels of many plants. The eggs are dull white, with numerous minute spots of brown scattered over the surface. They are nine lines long by five and a half lines broad.

The male has the head, all the upper surface, wings and tail, black, glossed with steel-blue; throat, breast and under tail-coverts, scarlet; flanks, dusky; abdomen, white, with a broad patch of black down the centre; irides, dark brown; bill and feet, blackish-brown.

The female is dull black above, glossed with steel-blue on the wings and tail; throat and centre of the abdomen, buff; flanks, light brown; under tail-coverts, pale scarlet.

Habitat: All parts of Australia, interior as well as the coast.



G. J. Broinowski. Fecit

- 1 ZOSTEROPS CÆRULESCENS. ' 2 ZOSTEROPS LUTEUS. (Gould) 3 ZOSTEROPS GOULDI. (Bonap)
 Grey-backed Zosterops. Yellow Zosterops. Green-backed Zosterops
 4 ZOSTEROPS TEPHROPLEURUS. (Gould) 5 DICÆUM HIRUNDINACEUM.
 Grey-breasted Zosterops. Swallow Dicæum.

PLATE IX.

ZOSTEROPS ALBOGULARIS (*Gould*).

WHITE-BREASTED ZOSTEROPS.

THIS is one of the two species of the genus *Zosterops* which is peculiar to Norfolk Island.

Except in the colouring, there is no material difference between this bird and others of the same genus. As with the others, the plumage of the sexes is alike.

All the upper surface and wing-coverts are olive-green, with a strong tinge of chestnut on the back; the wings and tail, brown, with a margin of green; a zone of white surrounds the eye, and is bounded in its turn by black; the throat, chest, and centre of the abdomen, white; flanks, pale chestnut; irides, brown; bill and legs, lead-coloured.

Total length, $5\frac{1}{2}$ inches; bill, $\frac{7}{8}$ inch; wings, 3 inches; tail, $2\frac{1}{2}$ inches; tarsi, 1 inch.

Habitat: Norfolk Island.

ZOSTEROPS TENUIROSTRIS (*Gould*).

SLENDER-BILLED ZOSTEROPS.

NEXT to *Zosterops Strenuus*, this is the largest species of the genus. The length of the bill, and greater slenderness and elegance of shape than its congeners, have suggested the specific name of "Tenuirostris" as most suitable.

Like the White-breasted *Zosterops*, this is an inhabitant of Norfolk Island.

Very little is known of the habits of this bird, and it is therefore impossible to say if they are the same as those of other members of the same genus.

The head, all the upper surface and wing-coverts, olive-green, with a tinge of dark brown on the back; wing and tail feathers, brown, bordered with green; throat, yellow, with a patch of red in the centre; abdomen, pale yellow; bill and legs, light brown; eye surrounded by a zone of white, which is bounded by blackish-brown.

The sexes are alike in plumage.

Total length, $5\frac{5}{8}$ inches; bill, $\frac{3}{4}$ inch; wing, $2\frac{5}{8}$ inches; tail, $2\frac{1}{8}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitat: Norfolk Island.

ZOSTEROPS STRENUUS (*Gould*).

ROBUST ZOSTEROPS.

EXCEPT in the matter of size and colour, there is no material difference between the various members of the genus *Zosterops*; and, therefore, when the characteristics and habits of one have been described, all are included.

The *Zosterops Strenuus*, which was first discovered by Mr. Macgillivray, exceeds all its congeners in size, and in comparison with them justly earns its title of "Robust."

The head and upper surface are dark green, with a mark of dark grey across the shoulders; chin and throat, yellow; breast, bluish-grey; centre of abdomen, almost white; flanks, light brown; eyes, as in the others, surrounded by a white ring, bounded by black; bill and feet, lead-colour.

Total length, $5\frac{3}{4}$ inches; bill, 1 inch; wing, $2\frac{3}{4}$ inches; tail, $2\frac{1}{4}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitat: Norfolk Island.



G J Brinowski, Fecit

1. ZOSTEROPS ALBOGULARIS (Gould)
White-breasted Zosterops

2. ZOSTEROPS TENUIROSTRIS (Gould)
Slender-billed Zosterops

3. ZOSTEROPS STRENUUS. (Gould)
Robust Zosterops

PLATE X.

GENUS MELITHREPTUS.

THIS purely Australian form is to be found in every part of Australia, including Tasmania.

MELITHREPTUS GULARIS (*Gould*).

BLACK-THROATED HONEY-EATER.

THE true home of this bird is South Australia, in all parts of which colony it is very plentiful. It is also to be found, though not in such large numbers, in Victoria and New South Wales. As it feeds almost entirely on insects and the pollen of flowers, it naturally frequents the leafy branches of trees, particularly those with a great number of blossoms.

Its cry is a harsh, unmusical sound, uttered as often by the female as by the male, while perched on the topmost dead branch of a lofty tree.

The crown of the head is black, an occipital band of white terminating at each eye; ear-coverts and back of the neck, black; back and rump, golden-olive; wings and tail, brown; throat, greyish-white, with a central stripe of black; under surface greyish-brown; bill, black; feet and tarsi, brownish-orange.

Total length, 6 inches; bill, $\frac{3}{4}$ inch; wing, $3\frac{5}{8}$ inches; tail, $2\frac{3}{4}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitats: South Australia, Victoria, and New South Wales.

MELITHREPTUS VALDIROSTRIS (*Gould*).

STRONG-BILLED HONEY-EATER.

TASMANIA can claim to possess the largest species of the genus yet discovered, in the person of the Strong-billed Honey-eater. It is remarkably abundant, frequenting every part of the island where Eucalyptus trees flourish.

The food consists principally of insects, which it obtains on the small leafy and flowering branches, and also from the boles of the trees. It never runs up the trunk, but flies to such portions of it as it is led to by instinct.

During the breeding season it lays three eggs, eleven lines long by eight lines broad, in a round, cupola-shaped nest, constructed of coarse grass, and lined with blossoms of grasses and other soft materials.

Crown of the head is jet black, with an occipital band of white terminating at each eye; ear-coverts and back of the neck, black; all the upper surface greyish-olive, becoming brighter on the rump and external edges of the tail feathers; wings, brown, with a slight tinge of olive; throat, pure white; under surface, brownish-grey; bill, black; feet, brownish horn-colour.

The young during the first autumn have the bill and feet yellow, and a circle of the same colour round the eye; the band at the occiput is also yellow instead of white.

Total length of adult, $6\frac{3}{4}$ inches; bill, $\frac{3}{4}$ inch; wing, $3\frac{1}{2}$ inches; tail, 3 inches; tarsi, $\frac{7}{8}$ inch.

MELITHREPTUS LUNULATUS (*G. R. Gray*).

LUNULATED HONEY-EATER.

WHEREVER gum and apple trees flourish in New South Wales and South Australia, the Lunulated Honey-eater will be found actively engaged in procuring its food of insects and pollen from the smaller branches of the trees.

The nest, generally made of the inner rind of the stringy-bark, lined with opossums' fur, is suspended from the small leafy branches at the top of the tree. There, during the months of August and September, two or three eggs are laid, of a pale buff, dotted all over with distinct markings of chestnut-red, with a few indistinct cloudy markings of bluish-grey. The length of the eggs is nine lines, and the breadth six and a-half lines.

The upper surface is greenish-olive; head and chin, black; crescent-shaped mark at the occiput, and all the under surface, white; wings and tail, brown, the apical half of the external webs of the primaries edged with grey; feet, olive; irides, very dark brown; bill, blackish-brown.

The female is smaller than the male, but there is no difference in plumage.

Habitats: New South Wales and South Australia.

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1 MELITHREPTUS VALDIROSTRIS (Gould)
Strong-billed Honey-eater

2 MELITHREPTUS GOEKIA S. Gould
Black-throated Honey-eater

3 MELITHREPTUS LUNULATUS (GR.Gray)
Lunulated Honey-eater

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MELITHREPTUS MELANOCEPHALUS (*Gould*).

BLACK-HEADED HONEY-EATER.

THE Black-headed Honey-eater is found only in Tasmania, where it frequents the Eucalyptus forests, generally in companies of from ten to twenty. Its fondness for fruit makes it a great pest to those who own orchards, among which it creates great havoc in the fruit season.

This is one of the many foster-parents of the young of *Cacomantis Flabelliformis*, by which bird its nest is very often chosen for depositing eggs.

The whole of the head and throat, and a semi-lunar mark on each side of the chest, deep glossy black; all the upper surface, greenish-olive; wings and tail brownish-grey, with lighter margins; breast, white; remainder of the under surface, greyish-white; bill, black; irides, reddish-brown; feet, brown.

The sexes do not differ in colouring, but the young differ from the adults in having the throat yellowish-white, instead of black, and the base of the bill flesh-colour or yellow.

Total length of adult, $5\frac{1}{4}$ inches; bill, $\frac{9}{16}$ inch; wing, 3 inches; tail, $2\frac{2}{5}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: Tasmania.

GENUS NECTARINIA (*Illiger*).

THIS genus is found in China, Japan, India, and the adjacent islands, and also in Africa. One species inhabits Australia.

NECTARINIA AUSTRALIS (*Gould*).

AUSTRALIAN SUN-BIRD.

THE north-east coast of Australia, as well as the adjacent islands, is inhabited by this pretty bird, which was first discovered there by Commander Ince, of H.M.S. "Fly." It is not at all numerous, and very seldom more than a pair are seen together. In general habits it very much resembles the *Myzomela Obscura*, like that bird frequenting flowering trees in order to obtain the insects which are to be found in the blossoms. During the period of incubation the male is very pugnacious, driving away all the other birds which come near the nest.

The breeding season lasts during the months of November and December. The nest, which is generally attached to a twig of a small shrub, is formed of fibrous roots and strips of the bark of the *Melaleuca* (tea-tree), interwoven with webs and cocoons of spiders and caterpillars, and lined inside with feathers and native cotton. Two eggs are laid, of a greenish-grey colour, spotted with dull brown.

The male has the crown of the head and upper surface olive-green; throat and chest, steel-blue; remainder of the under surface, yellow; bill and feet, black. The female has the whole of the under surface yellow, without a trace of the steel-blue which is on the chest of the male.

Total length, $4\frac{3}{4}$ inches; bill, $\frac{7}{8}$ inch; wing, $2\frac{1}{3}$ inches; tail, $1\frac{1}{2}$ inch; tarsi, $\frac{5}{8}$ inch.

Habitat: North-east coast of Australia and all the islands in Torres Straits.



1. MELITHREPTUS CHLOROPSIS (Gould).
Swan River Honey-eater

3. MELITHREPTUS MELANOCEPHALUS (Gould).
Black-headed Honey-eater

2. MELITHREPTUS ALBOGULARIS (Gould).
White-throated Honey-eater

4. NECTARINIA AUSTRALIS (Gould).
Australian Sun-bird.

PLATE XII.

GENUS MYZANTHA (*Vig. and Horsf.*)

THIS genus, which is confined to Australia, resembles the *Melithrepti* in many points, but is much more noisy and familiar.

MYZANTHA GARRULA (*Vig. and Horsf.*)

GARRULOUS HONEY-EATER.

IN the Eucalyptus forests of New South Wales, Victoria, South Australia and Tasmania this bird may always be found, generally in companies of from four to ten. The specimens procured in Tasmania are larger and more robust than those from the continent of Australia, but as the plumage is precisely the same in both, they cannot be considered two distinct species.

This is a very restless and noisy bird. It flies about from tree to tree, sometimes hanging from the branches in every variety of peculiar attitudes, and all the time keeping up an incessant babbling, which makes it very conspicuous.

The nest, which is cup-shaped, is made of thin twigs with coarse grass interwoven, and is lined with wool, hair, and feathers, and sometimes with soft strips of bark. The eggs are greyish-white, marked with reddish-brown, and are thirteen lines long by nine and a half lines broad.

The face is grey; crown of the head, dull black; ear coverts and a crescent-shaped mark inclining upwards to the angle of the bill, glossy black; all the upper surface, light greyish-brown; tail, greyish-brown, with dark brown shafts, and largely tipped with white; chin, grey, a patch of dark brown down the centre; under surface, grey, the feathers of the breast with a narrow crescent-shaped mark of brown near the tip of each; irides, dark hazel; bill and feet, yellowish-brown.

The female is slightly smaller than the male, but otherwise there is no difference.

Habitats: New South Wales, Victoria, South Australia, and Tasmania.

MYZANTHA OBSCURA (*Gould*).

SOMBRE HONEY-EATER.

THE *Myzantha Garrula* is represented in the south-western portion of Australia by the present species, which closely resembles its congener in characteristics and habits.

The stomach is small but muscular. The food, consisting of insects, seeds and berries, is obtained both on the ground and on the trees, between which it flies very gracefully.

The nest, built of small sticks, lined with feathers and various soft grasses, is generally placed on an upright fork of a small gum-tree. The eggs, eleven and a half lines long by nine lines broad, are of a rich orange-buff, with scarcely noticeable spots of a darker tint.

The head and all the upper surface are dull grey, with an indistinct line of brown down the centre of each feather; wings and tail, brown, margined at the base of the external webs with wax-yellow, the tail terminating in white; throat and under surface, dull grey, the feathers of the breast having a crescent-shaped mark of light brown near the extremity; lores, line beneath the eye, and ear-coverts, black; irides, dark brown; patch round the eye, and bill, bright yellow; legs and feet, dull reddish-yellow.

Total length, $9\frac{1}{2}$ inches; bill, $1\frac{1}{4}$ inch; wing, $5\frac{1}{2}$ inches; tail, $4\frac{5}{8}$ inches; tarsi, $1\frac{1}{8}$ inch.

Habitat: South-western part of Australia.



1 MYZANTHA GARRULA. (Vig & Horsf.)
Garrulous Honey-eater

2 MYZANTHA OBSCURA (Gould)
Sombre Honey-eater

Col. and Lith. by J. E. S. P.

PLATE XIII.

MYZANTHA LUTEA (*Gould*).

LUTEOUS HONEY-EATER.

THIS, the most beautiful of all the *Myzanthæ*, worthily represents the genus in the north-western part of Australia, where it was first procured by Mr. Bynoe. It does not differ materially from its congeners.

It is worthy of notice how thoroughly representative every member of this genus is, each one being confined to its own particular part, while the habits of all are very much the same.

Crown of the head is grey, with black spots; back of the neck, and back, dark brown; rump, upper tail-coverts, and under surface, white; throat and chest tinged with grey, each feather crossed by an arrow-shaped mark of brown; wings and tail, brown, the external margins of the feathers of the former dull citron-yellow; tail, tipped with grey; bill and forehead, citron-yellow; feet, yellowish-brown.

Total length, $10\frac{3}{4}$ inches; wing, $5\frac{7}{8}$ inches; tail, $5\frac{1}{4}$ inches; tarsi, $1\frac{1}{4}$ inch.

Habitat: North-western portion of Australia.

GENUS MANORHINA (*Vieillot*).

OF this genus, which is closely allied to the *Myzanthæ*, one species inhabits Australia.

MANORHINA MELANOPHRYS.

BELL-BIRD.

UNLIKE the *Myzanthæ*, this species inhabits thick and dense brushes, more especially those situated in swamps. It appears to be confined entirely to New South Wales, being found particularly in the brushes along the coast. It is met with in companies, varying in number from ten to forty. The note is a most peculiar one, resembling the distant tinkling of a sheep-bell—hence its name.

It is of a very inquisitive nature, and it is sufficient to utter any kind of a harsh note to bring the whole flock round, all showing the greatest curiosity to ascertain the cause. Then all simultaneously fly off to a neighbouring tree, with a skimming motion, spreading out the wings and tail.

The whole of the plumage, with the exception of the primaries and secondaries, yellowish-olive, the under surface being much paler than the upper; forehead, stripe from the lower mandible, and ring encircling the eye, black; ear-coverts, olive-brown; primaries and secondaries, dark brown, the former margined with grey, and the latter with yellowish-olive; bill, yellow; tarsi and toes, orange.

The sexes are alike in plumage.

Habitat: New South Wales.



1 MYZANTHA LUTEA (Gould)
Luteous Honey-eater.

2 MANORHINA MELANOPHRYS.
Bellbird.

PLATE XIV.

MYZANTHA FLAVIGULA (*Gould*).

YELLOW-THROATED MINER.

THE interior of New South Wales is inhabited by this bird, which there completely replaces the *Myzantha Garrula* of the coast. It is to be found in the belts of timber bordering the rivers of the interior, particularly the Namoi. Unlike the *Myzantha Garrula*, it remains chiefly on the tops of the trees, and also differs in being more timid and less noisy.

The forehead, upper part of the throat, and the tips of several feathers on each side of the neck are citron-yellow; back of the neck and back, grey; lores and ear-coverts, black; throat, cheeks, and all the under surface, grey, the feathers of the chest crossed by an arrow-shaped mark of brown; wings and tail, dark brown, the outer webs of the primaries, many of the secondaries, and the basal portion of the tail feathers, tipped with white; bill, legs, and feet, orange-yellow; irides, leaden-brown.

Total length, $9\frac{3}{4}$ inches; bill, 1 inch; wing, $5\frac{1}{4}$ inches; tail, 5 inches; tarsi, $1\frac{5}{16}$ inch.

Habitat: Interior of New South Wales.

GENUS PTILOTIS (*Swainson*).

THIS genus, which comprises some of the most beautiful members of the family *Meliphagidae*, contains more species than any other division of that family. Most of the species are confined to Australia, but some are also found in New Guinea and the adjacent islands.

PTILOTIS FILIGERA (*Gould*).

STREAKED HONEY-EATER.

ALTHOUGH not remarkable for the brilliancy of its plumage, this species has certain distinctive markings, particularly the yellow line beneath the eye and the minute striæ on the back of the neck.

It was first discovered by Mr. Wilcox, at Cape York, in a clump of mangroves, and seems to be confined to that quarter.

The upper surface, wings and tail are brown, with small, almost invisible, marks of greyish-white on the apical portion of the nuchal feathers; the wing-coverts broadly, and the remainder of the feathers narrowly edged with brownish-buff; ear-coverts, blackish-grey; a narrow streak of yellow runs from the lower angle of the ear-coverts, and is lost in a line of white which is beneath the eye; throat and breast, grey; under surface, brownish-buff; bill, black; legs and feet, slate-colour.

The sexes are the same in colour, but the young have not the white marks on the neck.

Total length, $7\frac{3}{4}$ inches; bill, 1 inch; wing, 4 inches; tail, 3 inches; tarsi, $\frac{7}{8}$ inch.

Habitat: Cape York.

PTILO^{TIS} FASCI^{OGULARIS} (*Gould*).

FASCIATED HONEY-EATER.

OF all the *Ptilotes*, this has the most distinctive markings in its plumage, differing from the others particularly in the alternate bars of yellow and black on the throat and fore part of the neck.

It is found on the low swampy islands off the eastern coast of Queensland, where the first specimens were procured by Mr. Strange.

In size it is the same as the *Ptilotis Sonora*, and in habits also closely assimilates to that bird.

The upper surface, wings, and tail are brown, the feathers of the primaries and tail being narrowly margined externally with pale yellow; lores, and a streak down the side of the head from the posterior angle of the eye, blackish-brown; ear-coverts, yellow; on each side of the head a patch of white; feathers of the throat, brownish-black, each with a broad margin of pale yellow, presenting a fasciated appearance; breast, very dark brown; under surface, slate-colour, striated with brown; irides, lead-colour; bill and feet, bluish-black.

The female is slightly smaller than the male, but otherwise does not differ from it.

Total length, $7\frac{1}{2}$ inches; bill, $\frac{7}{8}$ inch; wing, $3\frac{3}{4}$ inches; tail, $3\frac{1}{2}$ inches; tarsi, $1\frac{1}{5}$ inch.

Habitat: Islands off coast of Queensland.



1 MYZANTHA FLAVIGULA (Gould)
Yellow-throated Miner

2 MYZANTHA FLICERATA (Gould)
Yellow-throated Miner

3 MYZANTHA FLICERATA (Gould)
Yellow-throated Miner

PLATE XV.

PTILOTIS VERSICOLOR (*Gould*).

VARIED HONEY-EATER.

THE Varied Honey-eater, which is found in the northern part of Australia, is one of the finest members of its genus. It resembles the *Ptilotis Sonora* in many respects, but differs from it in its larger size and more distinct markings, and also in the colour of the breast.

All the upper surface is brownish-olive; wings, brown, each feather margined with yellow; under surface of the tail, yellowish-buff; stripe over the eye to the back of the neck, black; ear-coverts, dark grey; a stripe of bright yellow below the ear-coverts; throat and under surface, yellow, becoming paler as it approaches the vent; each feather has a stripe of olive-brown down the centre; bill, brownish-olive; feet, black.

Total length, 8 inches; bill, 1 inch; wing, 4 inches; tail, $3\frac{3}{4}$ inches; tarsi, 1 inch.

Habitat: North of Australia.

PTILOTIS LEUCOTIS.

WHITE-EARED HONEY-EATER.

THIS is one of the most widely distributed of the *Ptilotes*, being found in New South Wales, South Australia, and even in Western Australia, though it is very rare in the latter colony. It frequents both open Eucalyptus forests and the brushes near the coast, more especially the Bargo brush in New South Wales.

When creeping about the trees searching for food, it utters a loud note much resembling that of *Ptilotis Penicillata*. The food consists of various insects and the pollen of flowers.

The upper surface and abdomen are olive; crown of the head, grey, streaked with black; throat and chest, black; ear-coverts, white; wings and tail, olive-brown, the tail feathers being tipped with white; bill, black; irides, brown; legs and feet, brownish-black.

Habitats: New South Wales, South Australia, and Western Australia.

PTILOTIS FLAVIGULA (*Gould*).

YELLOW-THROATED HONEY-EATER.

IN nearly all the ravines and gullies of Tasmania this fine *Ptilotis* may be found, although, from the similarity of its colouring to that of the trees which it frequents, it is very difficult of detection. Specimens have also been procured in Victoria.

In its search for food it creeps about the branches, clinging to them in various beautiful attitudes.

The stomach is small, but very muscular, and on dissection is found to contain bees, wasps, and various smaller insects, as well as the pollen of flowers.

It breeds in August and September. The nest, which is placed in a low bush, is formed of strips of stringy bark, interwoven with wiry grasses and the cocoons of spiders. It is generally lined internally with kangaroo or opossum fur, but sometimes the fur-like material in which the base of the fronds of tree-ferns is embedded is used instead, and in some there is no lining. Two or three eggs are laid, eleven lines long by eight lines broad. In colour they are fleshy-buff, with small prominent spots of chestnut-red, and a very few of purplish-grey, thinly distributed over the surface.

The colouring of the sexes is the same, but the female is only about two-thirds the size of the male.

The lores and cheeks are black; crown of the head, ear-coverts, breast, and under surface, dark grey, some of the ear-coverts being tipped with yellow; chin and upper part of the throat, bright yellow; the upper surface, wings, and tail, brownish-olive; inner webs of the primaries and secondaries, dark brown; abdomen and flanks, washed with olive; bill, black; irides, wood-brown; legs and feet, black.

Total length, 8 inches; bill, 1 inch; wing, $4\frac{1}{4}$ inches; tail, $4\frac{1}{4}$ inches; tarsi, 1 inch.

Habitats: Tasmania, and parts of Victoria.



1-PTILOTIS VERSICOLOR-(Gould)
Varied Honey-eater

2-PTILOTIS LEUCOTIS -
White-eared Honey-eater

3-PTILOTIS FRONTALIS -
Yellow-throated Honey-eater

PLATE XVI.

PTILOTIS CRATITIA (*Gould*).

WATTLE-CHEEKED HONEY-EATER.

THE forests on the Upper Torrens, in South Australia, are the haunts of this bird, but it is also found in the brushes near the Murray and on Kangaroo Island off Yorke Peninsula. It is very closely allied to *Ptilotis Auricomis*, from which, however, it can readily be distinguished by the stripe of lilac-coloured bare skin which extends from the corner of the mouth down the sides of the cheeks.

As is the case with all the *Ptilotes*, the female is smaller than the male, but does not differ in plumage.

The crown of the head is grey; the upper surface, olive-green; wings and tail, brown, margined with olive; lores, a large space round the eye, and the ear-coverts, black; below this a narrow line of bright yellow; down each side of the throat a fleshy appendage, free at the lower end, of a beautiful lilac-colour; throat, yellow; under surface, grey, tinged with olive-yellow; irides, light brown; bill, black; legs and feet, blackish-brown.

Total length, 7 inches; bill, $\frac{7}{8}$ inch; wing, $2\frac{1}{2}$ inches; tail, $3\frac{1}{2}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitats: South Australia and Kangaroo Island.

PTILOTIS ORNATA (*Gould*).

GRACEFUL PTILOTIS.

THAT home of so many beautiful birds, the Belts of the Murray, also contains this species, justly called graceful. It is also seen in the neighbourhood of Perth, in Western Australia, where it creeps and flits about the branches of the high gum-trees in search of insects.

It almost continually pours forth a loud ringing note, which is rather pleasing to the ear.

The nest, a small, neat structure of fibres and grasses, joined together with spiders' webs, is suspended from a forked branch, generally in an exposed position. The eggs, either two or three in number, are of a deep salmon-colour, lighter at the smaller end, with minute spots of reddish-brown plentifully distributed over them. They are nine lines long by seven lines broad.

The crown of the head, the external edge of the wings, the rump and tail feathers are olive; back, olive-brown; all the under surface, greyish-white, each feather with a mark of brown down the centre; on each side of the neck a line of yellow feathers; bill, black; irides, brown; legs and feet, brown.

Total length, $6\frac{1}{2}$ inches; bill, $\frac{3}{4}$ inch; wing, $3\frac{5}{8}$ inches; tail, $3\frac{1}{8}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitats: The Belts of the Murray in South Australia, and Swan River in Western Australia.

PTILOTIS AURICOMIS.

YELLOW-TUFTED HONEY-EATER.

EVERY part of New South Wales is inhabited by the present species: the brushes near the coast, the forests of the plains in the interior, and the trees on the mountains and hills being equally favoured by it. It is very active and lively, darting swiftly from tree to tree in search of food.

It is very fond of fruit, and during the orange season great numbers may be seen in the orchards, especially about Parramatta, fighting over the half-decayed fruit which almost covers the ground.

It generally breeds in August and September, but eggs have sometimes been found as early as June. The eggs, usually two in number, are pale pink, becoming darker at the larger end, where they are spotted with a still darker shade. The nest, which is rather bulky, is composed of long strips of stringy-bark.

The eggs of the *Cacomantis Flabelliformis* are often found in the nest of this bird, which acts as a foster-mother to the young.

The crown of the head is olive; the throat and chest, bright yellow; a black line commences at the base of the bill, surrounds the eye and extends over the ear-coverts; behind the ear there is a tuft of yellow feathers; upper surface, wings and tail are dark brown, tinged with olive; primaries and tail feathers bordered with olive-yellow; under surface, brownish-yellow; bill, black; irides, very dark brown; feet, blackish-brown.

Habitat: New South Wales.



1. *PTILOTTIS GRATIA* (Gould)
Wattle-cheeked Honey-eater

2. *PTILOTTIS ORNATA* (Gould)
Green-faced Ptilotis

3. *PTILOTTIS ORNATA* (Gould)
Yellow-faced Honey-eater

PLATE XVII.

GENUS STOMIOPERA (*Reichenbach*).

THE difference in the habits of the *Stomiopera Unicolor* from those of the true *Ptilotes* would appear to justify Dr. Reichenbach's action in forming it into a new genus.

STOMIOPERA UNICOLOR (*Gould*).

UNIFORM-COLOURED HONEY-EATER.

THE *Stomiopera Unicolor*, which differs considerably from the *Ptilotes* both in structure and habits, was first procured by Gilbert at Port Essington. It is generally seen in pairs in the vicinity of swampy thickets. It resembles the *Sittellæ* greatly in the manner in which it runs and creeps upon the branches of trees in search of insects. Its flight is very feeble and peculiar, being performed with a rapid motion of the wings, the tail at the same time being retroverted over the back, giving the bird a most ludicrous appearance.

The stomach, which is small, but very muscular, is usually found on dissection to contain honey, various insects, and seeds.

The lores and orbits are deep brown; all the plumage brownish-olive, the under surface being paler than the upper; primaries bordered with brighter olive than the other parts of the body; under surface of the shoulder, pale buff; irides, dull red; bill, dark olive-brown; legs and feet, grey.

Total length, 7 inches; bill, 1 inch; wing, $3\frac{3}{4}$ inches; tail, $3\frac{1}{4}$ inches; tarsi, 1 inch.

Habitat: Port Essington.

PTILOTIS FLAVESCENS (*Gould*).

YELLOW-TINTED HONEY-EATER.

VERY little is known of the habits and economy of this species, of which Mr. Bynoe obtained the first specimen on the north coast of Australia. In all probability, however, it does not differ widely from the other members of the genus.

The head and all the under surface are citron-yellow; under the ear-coverts there is a spot of blackish-brown, posterior to which is a spot of bright yellow; the remainder of the plumage is olive-grey.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{3}{4}$ inch; wing, $2\frac{7}{8}$ inches; tail, $2\frac{1}{2}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: North coast of Australia.

PTILOTIS PLUMULA (*Gould*).

PLUMED PTILOTIS.

THE white-gum forests near York, in Western Australia, are the principal resorts of the Plumed Ptilotis, which may be there seen flitting about the branches, or flying from tree to tree with a peculiarly graceful motion. Its note, which is uttered continuously for a considerable time, is loud and shrill, resembling the sound of a pea-whistle.

The breeding season extends from October to January. The eggs, two in number, are deposited in a nest of dried grasses, suspended from the end of a horizontal twig. They are of a pale salmon-colour, spotted with a darker tint. The length is ten lines and the breadth seven lines.

The crown of the head and all the upper surface are bright olive-yellow, approaching to grey on the back; lores, black; ear-coverts, throat, and under surface, pale yellowish-grey; behind the ear are two tufts, the upper of which is narrow and black, and the lower is of a beautiful yellow; primaries and tail feathers, brown, margined with olive-yellow; irides, dark brown; bill, black.

Total length, $4\frac{3}{4}$ inches; bill, $\frac{3}{4}$ inch; wing, $3\frac{1}{4}$ inches; tail, $2\frac{3}{4}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: The district of York, in Western Australia.

PTILOTIS COCKERELLI (*Gould*).

COCKERELL'S HONEY-EATER.

GOULD named this Honey-eater after Mr. Cockerell, who rendered great services to science by his indefatigable energy in collecting specimens in the northern portion of Australia. Among the new species discovered by him was the present one, which inhabits Cape York Peninsula. It is most probably the extreme reluctance to making a new genus, where it can be avoided, that has caused this bird to be put among the *Ptilotes*, although it possesses some characteristic features which distinguish it from them.

The fore part of the head is grey; the upper surface is brown, each feather having a spot of darker hue in the centre; lesser wing-coverts, dark brown, with a spot of dull white at the tip of each; greater coverts and primaries, dark brown, with a broad margin of wax-yellow; tail, brown, the lateral feathers bordered with wax-yellow; ear-coverts, silvery white, with a few of the anterior feathers pale yellow, and a posterior tuft of gamboge-yellow; throat and breast clothed with narrow lanceolate white feathers; abdomen, greyish-white; bill, black; feet, greyish-brown.

Total length, 5 inches; bill, 1 inch; wing, $3\frac{1}{8}$ inches; tail, $2\frac{3}{4}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: Cape York Peninsula.



STOMIOPERA UNICOLOR (Gould)
Uniform-coloured Honey-eater
3 PTILOIS PLUMULA (Gould)
Plumed Ptilois.

2 PTILOIS FLAVESCENS (Gould)
Yellow-tinted Honey-eater
4 PTILOIS COCKERELLI (Gould)
Cockerell's Honey-eater

G. J. Brown, fec.

PLATE XVIII.

PTILOTIS FLAVA (*Gould.*)

YELLOW HONEY-EATER.

ONE of the officers of the surveying ship "Beagle" discovered this bird on the north coast of Australia, but although specimens have been obtained since then, no light has been thrown on it with respect to its habits or distribution over the Continent. As regards appearance, it is simply a representation of *Ptilotis Flavescens* on a considerably larger scale.

The sides of the head and all the under surface are citron-yellow; the rest of the plumage olive-grey.

Total length, $6\frac{1}{4}$ inches; bill, $\frac{7}{8}$ inch; wing, $3\frac{1}{4}$ inches; tail, $3\frac{1}{4}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: North coast of Australia.

PTILOTIS PENICILLATA (*Gould.*)

WHITE-PLUMED HONEY-EATER.

THE present species is abundantly distributed over South Australia, but outside of that colony is very rarely seen. Unlike most of its congeners, it is not confined to the trees, although most of its time is spent there, but may often be seen on the ground searching for insects and seeds. Wattle and Eucalypti are the trees most favoured by it for procuring its food.

In the breeding season three eggs are laid in a cup-shaped nest, constructed of grasses and wool, and suspended by the rim to a twig of an Acacia tree.

When fully adult, the markings of the two sexes are alike, the female, as usual, being slightly smaller than the male.

The sides of the face and ear-coverts are pale yellow; behind the ear-coverts is a small tuft of white silky feathers; upper surface, yellowish-grey; under surface, bright yellowish-brown; bill, black; irides, dark brown; legs and feet, brown.

Total length, $6\frac{1}{4}$ inches; bill, $\frac{5}{8}$ inch; wing, 3 inches; tail, 3 inches; tarsi, $\frac{3}{4}$ inch.

Habitats: South Australia and parts of New South Wales.

PTILOTIS FUSCA (*Gould*).

FUSCOUS HONEY-EATER.

THE brushes of New South Wales are the only places in which this species has been found; but there it is very abundant, both in summer and winter. It does not differ in its habits from the other *Ptilotes*, being generally seen, like them, among the blossoms and leafy branches of trees and shrubs, especially of the *Tecoma*, among whose thick clusters it finds abundance of insects.

Except that the female is slightly smaller than the male, there is no outward dissimilarity between the sexes.

The whole of the upper surface is greyish-brown, with a tinge of olive; ear-coverts, blackish-brown; behind the ear is a small patch of yellow; throat, chest, and under surface, greyish-brown; bill, yellow at the base and black at the tip; irides, yellow; feet, brown.

Total length, $6\frac{1}{2}$ inches; bill, $\frac{5}{8}$ inch; wing, $3\frac{1}{4}$ inches; tail, $2\frac{3}{4}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: New South Wales.

PTILOTIS CASSIDIX (*Jard.*)

HELMETED HONEY-EATER.

ONE of the finest of the Honey-eaters is the present one, first brought under the notice of scientific men by Sir William Jardine. It is a native of the southern portion of Victoria, the first specimens being found at Western Port Bay, near Port Phillip Heads. Its nearest ally is *Ptilotis Auricomis*, from which bird, however, it differs considerably in size and plumage. The habits, as far as they are known, are very much the same in both.

The raised tuft of feathers on the forehead, the crown of the head, nape, breast, and under surface are wax-yellow; cheeks and ear-tufts, rich yellow; lores, sides of the face, and ear-coverts, jet-black; all the upper surface, wings, and tail, olive-grey; all but the four central tail-feathers tipped with white; bill, black; feet, grey.

Total length, $8\frac{1}{2}$ inches; bill, $\frac{7}{8}$ inch; wing, $4\frac{1}{4}$ inches; tail, $4\frac{3}{8}$ inches; tarsi, 1 inch.

Habitat: Victoria.



1 PTILOIS FLAVA (Gould)
Yellow Honey-eater.

3 PTILOIS FUSCA (Gould)
Fuscous Honey-eater.

2 PTILOIS PENICILLATA (Gould)
White-plumed Honey-eater

4 PTILOIS CASSIDIX (Jard)
Helmeted Honey-eater.

PLATE XIX.

PTILOTIS CHRYSOPS.

YELLOW-FACED HONEY-EATER.

IT is almost impossible to go to any part of New South Wales or South Australia, whether in the interior or near the coast, without coming across specimens of this bird. It continually flits among the branches of trees in search of food, all the time uttering a beautiful and melodious song.

It breeds in October and November. The nest is built in various trees, sometimes on the top of a tall Casuarina, at other times in a small sapling, almost within reach of the hand. It is neatly built of the inner portion of the bark of trees, lined with very fine grasses, and is so thin that one can see through it. The eggs, two or three in number, are rather long; and in colour are deep buff, tinged at the larger end with chestnut-red, and the remaining surface has large spots of purplish-grey sparsely distributed over it. They are ten and a half lines long by seven lines broad.

The crown of the head and all the upper surface, wings and tail, are olive-brown, the primaries and secondaries being margined with yellow; throat and under surface, brownish-grey; a line of black runs from the nostrils through the eye; this line is bounded below by a stripe of yellow, below which runs another parallel line of black; behind the ear-coverts is a spot of white; bill, black; irides, brown; legs and feet, blackish-brown.

Habitats: New South Wales and South Australia.

GENUS MELIPHAGA (*Lewin*).

ONLY one species is known of this genus, which inhabits the south-eastern portion of Australia. It is confined to districts where the Eucalypti flourish, and is more abundant near the coast than in the interior.

MELIPHAGA PHRYGIA (*Lewin*).

WARTY-FACED HONEY-EATER.

NO one who has seen this bird in its native state, especially when flying, could fail to be struck with the beautiful contrasted hues of black and yellow, which render it one of the handsomest, not only of the Honey-eaters, but of all the birds of Australia. It is confined to New South Wales, Victoria, and South Australia, but can be found in any particular district only when the Eucalyptus trees there are in blossom. As a general rule, two or three take possession of a tree, from which they keep off all other birds, even those of their own species. Sometimes flocks of from fifty to a hundred are seen passing from tree to tree in search of food.

The nest, which is a round cup-shaped structure about five inches in diameter, is formed of grasses lined with wool and fur. The eggs are in colour yellowish-buff, spotted all over with reddish-brown and grey, the spots generally forming a zone at the larger end.

The young are devoid of the warty excrescences which cover the face of the adults.

The head, neck, upper part of the back, and the chest are black; scapularies and upper tail-coverts, black, broadly margined with yellow; primaries, black, with an oblong stripe of yellow occupying the margin of the outer and portion of the inner web next the quill; secondaries, black, with a broad margin of yellow; under surface, black, with an arrow-shaped mark of yellowish-white near the extremity of each feather; two centre tail-feathers, black, slightly tipped with yellow; the others black at the base and yellow for the remainder of their length; bill, black; irides, light brown; feet, black; the face covered by warty excrescences of a yellowish-white colour.

Habitat : The south-eastern portion of Australia.

GENUS LICHNOTENTHA (*Cabanis*).

THE present genus differs from nearly all the other *Meliphagidæ* in the distinct colouring of the sexes. It moreover possesses many singular and characteristic habits. Only one species is known, which inhabits South and Western Australia.

LICHNOTENTHA PICATA (*Gould*).

PIED HONEY-EATER.

THE principal abode of this bird is in the plains about Adelaide, where large flocks may be seen continually soaring about. It also periodically visits Western Australia, arriving there generally in October. Whilst flying, which it does with a very graceful motion, it utters a plaintive note, repeated several times, and also a single one, which resembles greatly that of the *Myzomela Nigra*. On account of its shy and timid nature, it is always very difficult of approach.

The male has the head, throat, sides of the chest, back, wings, and tips of the tail-feathers, black; the wing-coverts, the base and the margins of both webs of the secondaries, the under surface and the lateral tail-feathers for three-fourths of their length, pure white; bill, bluish-grey; irides, brown; legs and feet, bluish-grey; the naked space and a small fleshy appendage beneath the eye, ash-grey.

The female is light brown, each feather being darkest in the centre; wings and tail, dark brown, the former margined with buffy-white; under surface, buffy-white, with a small streak of black near the tip of each feather.

Total length of male, $6\frac{3}{4}$ inches; bill, $\frac{7}{8}$ inch; wing, $3\frac{5}{8}$ inches; tail, $2\frac{7}{8}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitats : South and Western Australia.

PTILOTIS LEWINII (*Swains.*)

LEWIN'S HONEY-EATER.

IN the brushes of New South Wales, particularly on the Hunter River and in the Liverpool Range, Lewin's Honey-eater is found in great numbers. In many respects it closely resembles the *Ptilotis Flavigula*, especially in frequenting low shrub-like trees rather than the tall kings of the forest so favoured by its congeners.

The food consists principally of honey and insects, but this is sometimes varied by fruits and berries. It is remarkably tame in disposition, allowing persons to approach to within a few yards of it without taking flight. During the spring and summer it makes the forest resound continually with a loud whistling note.

The nest, which is constructed of sticks and lined with fine twigs and fibres, is placed in the midst of a Tecoma or other creeping plant, usually overhanging a pool of water in a gully. The eggs, two in number, are greyish-white, spotted with dark brown ; they are eleven and a half lines long by eight lines broad.

The upper surface, wings, and tail are olive-green, the primaries and secondaries being bordered with yellowish-brown ; under surface, olive-grey ; beneath the eye is a line of yellow, below which is a narrow line of black ; bill, black ; legs and feet, lead-colour.

Habitat : New South Wales.



1. PTILOTTIS CHRYSOPS
Yellow-faced Honey-eater

2. MELIPHAGA PHRYGIA (Lewin)
Warty-faced Honey-eater

3. LICHNOTENTHA PICATA (Gould).

PLATE XX.

PTILOTIS SONORA (*Gould*).

SINGING HONEY-EATER.

THE range of this species is very extensive, stretching from the east coast of Australia to the west, and also reaching very far north. It is especially common in the interior of New South Wales, and also about the Swan River in Western Australia. It is generally found on the she-oak or honeysuckle trees, which dot large, grassy plains and the sides of hills. In Western Australia it is very troublesome in the orchards, particularly among fig-trees, of the fruit of which it is very fond. Unlike most of the other Honey-eaters, it seeks for insects, not only among the branches of trees, but also in the fallen timber, about which it hops with great activity.

It takes exclusive possession of any tree on which it perches, fighting with and driving away birds considerably larger than itself.

The breeding season lasts from August to the end of December. The nest is composed either of thin twigs, lined with fibres, or of interwoven grasses, lined with marsupial fur or down of flowers. In this either two or three eggs are laid, of a light buff, covered with small reddish-brown spots. In length they are eleven lines and in breadth eight lines.

The crown of the head and all the upper surface are dark-grey; wings and tail, brownish-grey, margined with yellow; a space round the eye and line down the sides of the neck, black; ear-coverts, pale-yellow, behind which is a small spot of white; under-surface, pale olive, striated with light brown; irides, light brown; bill, brownish-black; legs and feet, lead-colour.

Total length, $7\frac{1}{2}$ inches; bill, 1 inch; wing, $3\frac{3}{4}$ inches; tail, $3\frac{1}{2}$ inches; tarsi, 1 inch.

Habitats: New South Wales, South Australia, Western Australia, and some of the northern portions of Australia.

GENUS STIGMATOPS (*Gould*).

ONE species of this form is found in Australia, and two or three more in the islands north of that continent.

STIGMATOPS OCULARIS (*Gould*).

BROWN HONEY-EATER.

THE Brown Honey-eater is found in large numbers on the coast and in the interior of New South Wales, and also about the neighbourhood of Perth in Western Australia.

Its food, in the search for which it displays great activity among the branches of trees, is the same as that of most of the other *Meliphagidæ*, namely, pollen of flowers and various insects.

During the period of incubation, the male almost continuously pours forth his beautiful and varied song whilst the female is sitting on the eggs.

The nest is constructed of small strips of soft bark, generally of the tea-tree, and dried grasses, joined together with the cocoons of spiders, and is lined with wool, the down of flowers, or fine grasses.

Some of the eggs are pure white, others variously marked with spots of reddish-brown. They are generally two in number, and are eight lines long by six lines broad.

Crown of the head, upper surface, wings and tail are dark-brown, the primaries and secondaries being margined with wax-yellow; throat, under-surface and under-tail coverts, grey, the vent tinged with yellow; bill, blackish-brown; irides, hazel; legs and feet, brown.

Total length, $5\frac{1}{4}$ inches; bill, $\frac{7}{8}$ inch; wing, $2\frac{3}{4}$ inches; tail, $2\frac{1}{4}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitats: New South Wales and Western Australia.



1 PTILOTTIS LEWINII (Swains).
Lewins Honey-eater

2 PTILOTTIS SONORA (Gould)
Singing Honey-eater

3. STIGMATOPS OCULARIS (Gould).
Brown Honey-eater

PLATE XXI.

GENUS GLYCIPHILA (*Swains.*)

THE members of this genus differ from most of the other *Meliphagidæ* in their much greater powers of flight, and also in the fact that insects form a larger portion of their food.

GLYCIPHILA FULVIFRONS (*Swains.*)

FULVOUS-FRONTED HONEY-EATER.

THIS bird is found in all the southern portion of Australia, as well as in New South Wales, the northern part of Tasmania, and the islands in Bass's Straits. It is very shy, and usually remains on the topmost branches of a tall tree, where its presence will be discovered by its song, which is very peculiar, "commencing with a single note slowly drawn out, and followed by a quick repetition of a double note repeated six or eight times in succession."

The nest, which is placed in a low bush, is formed of dried grasses and lined with sheep's wool, or various other materials, according to the locality. In the breeding season, which lasts from August to February, it lays either one or two eggs, sometimes perfectly white, but usually marked with spots and blotches of reddish-brown. They are ten lines long and seven lines broad.

Crown of the head and forehead, fulvous or tawny; over each eye a narrow line of white; a line of brownish-black commences at the base of the bill, surrounds the eye, and passes down the sides of the neck and chest; centre of the back, dark brown, with a stripe of ashy-brown down the centre of each feather; the remainder of the upper surface and flanks, ashy-brown; throat and abdomen, white; wings and tail, dark brown, the wing-coverts and primaries bordered with olive; irides, light brown; bill, blackish-brown; legs and feet, black.

The young bird differs considerably in plumage from the adult.

Habitats: New South Wales, Victoria, South Australia, the southern portion of Western Australia, Tasmania, and the islands in Bass's Straits.

GLYCIPHILA ALBIFRONS (*Gould.*)

WHITE-FRONTED HONEY-EATER.

THIS species is not found near the coast, but is very plentiful in the interior of New South Wales, Victoria, South Australia, and Western Australia—in fact, it is the inland representative of the *Glyciphila Fulvifrons* of the coast. Like the other members of the genus, it is exceedingly shy.

The nest is a shallow structure made of small sticks, lined with *Zamia* wool and the soft buds of some flowers. The eggs are nine and a half lines long by seven lines broad, and are of a pale buff colour, with spots of chestnut and bluish-grey distributed over the surface, particularly at the larger end.

The forehead, lores, a narrow ring round the eye, and a line running from the angle of the lower mandible, white; crown of the head, black, each feather slightly margined with white; ear-coverts, grey; all the upper surface, dark brown, irregularly margined with light brown, producing a mottled appearance; wings and tail, brown, the primaries margined externally with yellow; chin and throat, brownish-black, speckled with white; chest and abdomen, white, striped with blackish-brown on the flanks; irides, brown; naked space behind the eye, blood-red; bill, legs and feet, black.

Total length, $5\frac{3}{4}$ inches; bill, $\frac{3}{4}$ inch; wing, $3\frac{1}{4}$ inches; tail, $2\frac{3}{4}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitats: Interior of New South Wales, Victoria, South Australia, and Western Australia.

GLYCIPHILA FASCIATA (*Gould*).

FASCIATED HONEY-EATER.

THE Cobourg Peninsula is the home of the present species, where it is sparingly distributed, generally in families of about twelve. It is usually seen on the branches of the *Melaleuca* (tea-tree), on the flowers of which it sometimes feeds, as well as on insects and honey.

It has a loud shrill note, which is frequently repeated.

The crown of the head is brownish-black, with a small crescent of white at the extremity of each feather; feathers of the back very dark brown, margined with buffy-brown; wings and tail, dark brown, fringed with light brown; sides of the face, throat and under surface, white; from the angle of the mouth down the side of the neck a narrow stripe of brownish-black; chest crossed by a number of semi-circular brownish-black fasciæ; flanks and under tail-coverts, light buff, the former with a stripe of brownish-black down each feather; irides, reddish-brown; bill, grey; legs and feet, brown.

Total length, $4\frac{3}{4}$ inches; bill, $\frac{5}{8}$ inch; wing, $2\frac{7}{8}$ inches; tail, $2\frac{1}{5}$ inches; tarsi, $\frac{5}{8}$ inch.

Habitat: The Cobourg Peninsula, on the north coast of Australia.



1 GLYCIPHILA FULVIFRONS. (Swains)
Fulvous-fronted Honey-eater

2 GLYCIPHILA ALBIFRONS Gould
White-fronted Honey-eater

3 GLYCIPHILA FASCIATA. (Gould)
Fasciated Honey-eater

PLATE XXII.

GENUS ENTOMYZA (*Swainson*).

THIS genus is confined entirely to Australia. Two species have been discovered, one inhabiting New South Wales and the other the north-eastern portion of the continent.

ENTOMYZA CYANOTIS (*Swains*).

BLUE-FACED HONEY-EATER.

THIS, one of the largest and most beautiful of the Honey-eaters, is found only in New South Wales, in nearly every part of which colony it is plentifully distributed, though it is principally confined to the part adjacent to the coast.

In habits it bears a great resemblance to the *Melithrepti*, like them displaying great activity among the branches of the trees. Eight or ten are generally seen together on a tree, from which they drive away all birds of other species.

Its cry is loud and monotonous, and not at all pleasing.

Perhaps the most remarkable fact about this bird is that it does not build a nest, but deposits its eggs, generally two in number, in a depression on the top of the dome-shaped nests of the *Pomatostomus Temporalis*. The eggs are of a rich salmon-colour, with spots of rust-brown irregularly distributed over the surface. They are one inch and a quarter long by ten and a half lines broad. It generally raises two broods in the year.

The crown of the head and back of the neck are black; chin and centre of the chest, slaty-black; a crescent-shaped mark at the occiput, a line from the lower mandible passing down each side of the neck, and all the under-surface, white; the upper-surface, wings and tail, olive-brown; the inner webs of the primaries, and all but the two centre tail-feathers, dark-brown, the tail-feathers tipped with white; bill, horn-colour; space surrounding the eye, deep-blue, becoming lighter and more greenish above the eye; irides, yellowish-white; legs and feet, grey.

Habitat: New South Wales.

ENTOMYZA ALBIPENNIS (*Gould*).

WHITE-QUILLED HONEY-EATER.

ALTHOUGH resembling its congener, *Entomyza Cyanotis*, in many respects, this species has several characteristic features in its plumage which prevent the possibility of mistaking one bird for the other. It is found only on the north coast, and is very abundant in the neighbourhood of Port Essington. It is seldom seen on the ground, and appears to be almost entirely confined to the upper branches of high trees, where it is seen in families of from six to ten. Its note is loud and harsh, and is repeated frequently while the bird is flying.

The crown of the head and back of the neck are black; the chin and centre of the chest, slaty-black; a crescent-shaped mark at the occiput, a line from the lower mandible passing down each side of the neck, and all the under-surface, white; upper surface and wings, olive-brown, tinged with green; primaries, brown, the basal portion of their inner webs white; tail-feathers, brown, all except the two centre ones tipped with white; base of the bill, yellow; tip, black; irides, yellowish-white; legs and feet, leek-green.

Total length, 12 inches; bill, $1\frac{1}{2}$ inches; wing, 6 inches; tail, $4\frac{3}{4}$ inches; tarsi, $1\frac{1}{2}$ inches.

Habitat: North coast of Australia.



2. ENIOMYZA ALBIPENNIS (COOPER)
White-headed Honey-eater

1. MYIOMYZA CYANOTIS (SAY)
Blue-headed Honey-eater

PLATE XXIII.

GENUS MYZOMELA (*Vig. and Horsf.*)

OF the present genus, five species inhabit Australia, and others are found in New Guinea and the adjacent islands.

MYZOMELA SANGUINOLENTA.

SANGUINEOUS HONEY-EATER.

THE brushes of New South Wales contain large numbers of this species, which is very seldom seen in the large, open forests of the interior. It is also found in Victoria and the north coast, but is not plentiful there.

The sexes differ very considerably in colouring, that of the female being very plain, thus forming a great contrast to the lovely plumage of the male.

The male has the head, neck, breast, back, and upper tail-coverts scarlet, the back having a crescent-shaped mark of black at the tip of each feather; lores, wings and tail, black, the primaries margined with greyish-olive; abdomen and under tail-coverts, buffy-white; irides, dark-brown; bill, legs and feet, black.

The female is of a uniform brown, much lighter beneath than above.

Habitats: New South Wales, Victoria, and the north coast.

MYZOMELA ERYTHROCEPHALA (*Gould*).

RED-HEADED HONEY-EATER.

THE northern part of Australia, the home of so many beautiful birds, also possesses this interesting and beautiful little Honey-eater, which there inhabits the mangrove forests on the coast. It is not abundant, and, as a general rule, shuns all settlements, on which account it is very difficult to procure specimens. It flits about the flowering trees, with great activity, and all the time uttering its cry, which is harsh and discordant.

The male has the head, neck and chest scarlet; the rest of the plumage dark brown, becoming much lighter on the abdomen; irides, reddish-brown; bill, brown; legs and feet, brownish-grey.

The female is uniform brown above and lighter beneath.

Total length of male, $4\frac{1}{2}$ inches; bill, $\frac{3}{4}$ inch; wing, $2\frac{1}{4}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{5}{8}$ inch.

Habitat: North coast, especially about Port Essington.

MYZOMELA PECTORALIS (*Gould*).

BANDED HONEY-EATER.

MR. BYNOE first procured this bird on the north coast of Australia, to which part it is confined. Although other specimens have been obtained since, very little is known of its habits; but that little appears to show that they do not differ from those of the other species of the same genus.

The forehead, crown of the head, upper-surface, wings and tail, and a narrow band across the chest are black; throat and all the under-surface, white; bill, legs and feet, black; irides, greyish-white.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{5}{8}$ inch; wing, $2\frac{5}{8}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{5}{8}$ inch.

MYZOMELA OBSCURA (*Gould*).

OBSCURE HONEY-EATER.

THE *Myzomela Obscura* is found in the northern portion of Australia, generally being seen on one of the various species of Grevillea, near a stream of water in some secluded part of the forest. It goes about singly, and is very shy and difficult of approach.

The sexes do not differ in outward appearance.

The whole of the plumage is dull brown, with a vinous tint on the head, the under surface paler than the upper; irides, scarlet; bill and feet, grey.

Total length, 5 inches; bill, $\frac{3}{4}$ inch; wing, $2\frac{3}{4}$ inches; tail, $2\frac{1}{4}$ inches; tarsi, $\frac{5}{8}$ inch.

Habitat: North coast of Australia.



1. MYZOMELA SANGUINOLENTA.
Sanguineous Honey-eater
3 MYZOMELA PECTORALIS. (Gould)
Pectoralis

2. MYZOMELA ERYTHROCEPHALA. (Gould)
Red-headed Honey-eater
4 MYZOMELA OBSCURA (Gould)
Obscura

PLATE XXIV.

MYZOMELA NIGRA (*Gould*).

BLACK HONEY-EATER.

THE sombre plumage of the Black Honey-eater serves effectually to distinguish it from all its congeners. It inhabits the interior of New South Wales and Western Australia, but is never found on the coast.

Unlike most of the *Meliphagidæ*, its food consists almost entirely of insects.

It flies with a swift zig-zag motion, but the flight is not of long duration.

During the breeding season, in October and November, it makes a nest of dried grasses in an exposed position, generally on a dead limb of a tree, and lays two eggs, of a light buff colour, with a circle of small brown blotches round the middle. They are seven lines long by five and a-half lines broad.

The male has the head, throat, chest, upper surface, wings and tail, sooty-black; all the rest of the plumage, white; irides, brownish-grey; bill and feet, black.

The female has the head, upper surface, wings and tail, brown; throat and all the under surface, brownish-white, the centre of each feather being the darkest; bill, brown; legs and feet, brownish-black.

Total length of male, 5 inches; bill, $\frac{3}{4}$ inch; wing, $2\frac{1}{2}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{1}{2}$ inch.

Habitat: Interior of Australia.

GENUS ACANTHORHYNCHUS (*Gould*).

THIS purely Australian form comprises two species, one of which inhabits the east and the other the west coast.

ACANTHORHYNCHUS TENUIROSTRIS (*Gould*).

SPINE-BILL.

THE slender and delicate bill of this bird, which inhabits Tasmania and the south-eastern part of Australia, seems to be specially adapted for extracting the honey and insects from the buds of flowers. It frequents the wattles and gums, when they are in blossom, but generally procures its food from the *Epacris*, a kind of heather which is particularly plentiful in Tasmania. It is generally very shy, but when obtaining food, allows persons to approach to within a few yards without taking flight.

Its note can only be described as a loud, monotonous shriek.

The nest is constructed of grasses and moss, lined with soft feathers, and is usually placed in a small, low shrub. The eggs, two in number, are buffy-white, tinged with a stronger colour towards the large end; they are nine lines in length and six lines in breadth.

The crown of the head is bluish-black; ear-coverts, lunated space on the sides of the chest and primaries, black; back of the neck, rich chestnut-brown, becoming lighter on the upper part of the back; secondaries, wing-coverts and tail, grey, the latter tipped with white; throat, cheeks and chest, white, the first with a line of chestnut-brown in the centre; abdomen, flanks and under tail-coverts, light chestnut brown; irides, scarlet; bill, grey; feet, greyish-brown.

Habitats: New South Wales, Victoria and Tasmania.

ACANTHORHYNCHUS SUPERCILIOSUS (*Gould*).

WHITE-EYEBROWED SPINE-BILL.

THIS, the western representative of the genus *Acanthorhynchus*, is found in considerable numbers about Perth and Fremantle, where it mostly frequents the Banksia (honeysuckle) forests. It, however, sometimes obtains its food from low shrubs, and even on the ground. Its song, which is rather pretty, is always uttered while flying from branch to branch with a rapid and irregular motion.

It breeds in October, when it constructs a warm and compact nest of fine grasses, threads of bark and fibres, lined inside with feathers and *Zamia* wool. The colour of the two eggs laid by it, is light buff, spotted with reddish-brown. They are nine lines long by six and a-half lines broad.

The crown of the head, all the upper surface, wings and tail are greyish-brown; ear-coverts are blackish-brown; space over the eye, chin, and a broader line beneath the eye, white; back part of the neck, reddish-brown; centre of the throat, chestnut, bounded below by a patch of white, succeeded by another of black; abdomen and under tail-coverts, brownish-grey; irides, red; bill, blackish-brown; legs and feet, dark brown.

Total length, $5\frac{1}{4}$ inches; bill, $1\frac{1}{5}$ inch; wing, $2\frac{1}{2}$ inches; tail, $2\frac{1}{4}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: Western Australia.



1 MYZOMELA NIGRA (Gould)
Black Honey-eater

2. ACANTHORHYNCHUS TENUIROSTRIS (Gould)
Spine-bill

PLATE XXV.

GENUS TROPIDORHYNCHUS (*Vig. and Horsf.*)

TWO species of this form inhabit the north-east of Australia and two the south-east. Others are found in New Guinea and the neighbouring islands.

TROPIDORHYNCHUS CORNICULATUS (*Vig. and Horsf.*)

FRIAR BIRD.

EVERY inhabitant of New South Wales knows the Leather Head, or Friar Bird, or at any rate has heard its peculiar note. It is found in every part of the colony, and also in Victoria, but its range does not extend any further westward. During the breeding season it is very pugnacious, driving away from the vicinity of the nest, Magpies, Hawks and other large birds.

It flies from one part of the forest to another, above the tops of the trees, with an undulating motion.

The nest is strongly constructed of the inner rind of the stringy-bark, and wool, inside of which is a layer of fine twigs, the whole being lined with grass and fibrous roots. It is suspended to a horizontal branch of a gum-tree or Angophora (apple-tree). Three eggs are generally laid, one inch and five lines long by eleven lines broad, pale salmon-colour, speckled with a darker tint.

The bill and head are dull black, the former with a sort of knob on the upper mandible; upper surface, wings and tail, greyish-brown, the latter tipped with white; chin and lanceolate feathers on the chest, white; remainder of the under surface, brownish-grey; irides, hazel; feet, lead-colour.

Habitats: New South Wales and Victoria.

TROPIDORHYNCHUS ARGENTICEPS (*Gould*).

SILVERY-CROWNED FRIAR BIRD.

BY procuring the present species, Mr. Bynoe added another to the list of his valuable discoveries. He found it on the north-west coast, and other specimens were obtained further inland.

In habits it much resembles the *Tropidorhynchus Corniculatus*, but differs considerably from that bird in appearance, particularly in having the crown of the head partially covered with small lanceolate feathers.

The crown of the head, silvery-white; the remainder of the head naked and of a brownish-black; throat and under surface, white; back, wings and tail, brown; bill and feet, brownish-black.

Total length, $10\frac{1}{2}$ inches; bill, $1\frac{3}{8}$ inch; wing, $5\frac{1}{2}$ inches; tail, $4\frac{1}{2}$ inches; tarsi, $1\frac{1}{8}$ inch.

Habitat: North-west portion of Australia.



1 TROPIDORHYNCHUS CORNICULATUS (Vig & Horsf).
Frian—bird

2 TROPIDORHYNCHUS ARGENTATUS (Vig & Horsf).
Frian—bird

PLATE XXVI.

TROPIDORHYNCHUS CITREOGULARIS (*Gould*).

YELLOW-THROATED FRIAR BIRD.

THE interior of New South Wales and Victoria is inhabited by this bird, which is never found between the mountains and the coast. It is most abundant about the river Namoi. The yellow colouring of the throat, from which it takes its name, is only found in those not yet come to maturity.

The habits and mode of living are the same as those of the *Tropidorhynchus Corniculatus*.

The breeding season is in November.

The young differ from the adults in several respects, but particularly in having the throat and sides of the chest yellow.

The adult has the whole of the upper-surface, wings and tail, olive-brown; under surface, brownish-grey; irides, dark grey; naked part of the face, bill and feet, lead-colour.

Total length, $10\frac{1}{4}$ inches; bill, $1\frac{1}{4}$ inch; wing, $5\frac{1}{4}$ inches; tail, $4\frac{1}{2}$ inches; tarsi, $1\frac{1}{8}$ inch

Habitat: Interior of the south-eastern part of Australia.

TROPIDORHYNCHUS BUCEROIDES (*Gray and Mitch.*)

HELMETED FRIAR BIRD.

THERE are several points in which the species under notice differs from all the other Australian members of the group. It is the largest of all, and, moreover, is distinguished by having the crown of the head clothed with feathers.

It is the representative of the genus about the Cape York Peninsula, where, however, it is rather rare.

The feathers of the crown and nape are olive; upper surface, wings and tail, brown; throat and under surface, brownish-olive, the feathers of the former with darker centres; face, leaden-black; irides, light brown; bill and feet, black.

Total length, 11 inches; bill, $1\frac{3}{4}$ inch; wing, 5 inches; tail, $4\frac{3}{4}$ inches; tarsi, $1\frac{3}{8}$ inch.

Habitat: North coast.



1 TROPIDORHYNCHUS CITREOGULARIS (Gould.)
Yellow-throated Friar bird

2 TROPIDORHYNCHUS BUCEROIDES (Gray & Mearns)
Helmeted Friar bird

PLATE XXVII.

GENUS ANTOCHÆRA (*Vig. & Horsf.*)

OF this exclusively Australian genus there are two species, one of which inhabits Tasmania, and the other the southern portion of Australia.

ANTOCHÆRA INAURIS.

WATTLED HONEY-EATER.

IN the large, thick Eucalyptus forests of Tasmania this bird is found plentifully, generally in large flocks of from twenty to sixty. It also visits the more open forests when the trees are in blossom, and from these parts, particularly about the Macquarie Plains, great numbers are procured for eating purposes. The flesh forms a very fine article of diet, especially in winter, when the whole body is covered with a thick coating of fat. Honey, which it procures from the flowers with its long, brush-like tongue, almost entirely constitutes its food; but it sometimes also feeds on insects, generally of the Coleoptera tribe.

In size and manner of flight it much resembles the European Magpie (*Pica Caudata*). Its cry is loud and harsh, something like that of the Pheasant.

The nest, which is usually placed in a low tree—the Casuarina being frequently chosen—is constructed of grass and twigs, interwoven with wool. The eggs are pale salmon-colour, speckled with yellowish-red. They are one inch and three-eighths long by seven-eighths of an inch broad.

The crown of the head and back of the neck striped with black and grey, the centre of each feather being black, and the edges grey; back and shoulders dusky-brown, the shaft of each feather grey; wings, dark brown, the external edges of the primaries slightly and the secondaries broadly margined with grey; the two middle tail-feathers, dark grey, the remainder blackish-brown, and all broadly tipped with white, giving the under side of the tail a gradated appearance; chin and under tail-coverts, white, each feather of the latter having an arrow-shaped mark of black; throat, breast, and flanks, buffy-grey, each feather having a central mark of blackish-brown, which is much enlarged on the lower part of the breast; centre of abdomen, rich yellow; bill, black; feet, light flesh-colour; bare skin round the ear, and upper extremity of the long pendulous wattle which hangs from below the ear, white, gradually deepening into rich orange at the extremity; irides, blackish-brown.

Habitat: Tasmania.

ANTOCHÆRA CARUNCULATA.

WATTLED HONEY-EATER.

THE whole of the southern portion of the Continent of Australia is inhabited by this species, which was first described under the name of *Merops Carunculatus* by Latham. It is most abundant in the Apple-tree flats and Eucalyptus forests of New South Wales and South Australia, but is never found in Tasmania. It is seen in pairs, but is very difficult of approach, on account of its timid nature, though sometimes it becomes very bold. Like the *Antochæra Inauris*, it utters a loud, harsh scream.

During the breeding season, which is in September and October, it builds, either on a branch of an Angophora (apple-tree), or in a bush, a nest of dried twigs, sometimes lined with grass and sometimes without any lining. The eggs, two or three in number, are of a reddish-buff, with spots and blotches of chestnut and reddish-brown distributed over the surface. In some there are also small, indistinct marks of grey. They are one and a quarter inches long by ten and a half lines broad.

This bird is slightly smaller than the *Antochæra Inauris*, the female being of less size than the male.

Crown of the head, ear-coverts and chin, blackish-brown; space under the eye, silvery-white; below it is a short, pendulous wattle of a blood-red colour; back of the neck and all the upper-surface, greyish-brown; primaries and secondaries, blackish-brown, edged with grey; two middle tail-feathers, greyish-brown, the remainder darker brown, all being tipped with white; beneath the ear-coverts a patch of white; breast, light brown, the centre of each feather being white; upper parts of abdomen and flanks, blackish-grey, the centre of each feather lighter; middle of abdomen, yellow; irides, hazel-red; bill, blackish-brown; legs and feet, flesh-colour.

Habitats: New South Wales, Victoria, South Australia, and southern part of Western Australia.



1 ANTHOCHÆA INAURIS.
Wattled Honey-eater.

2 ANTHOCHÆA CARUNCULATA.
Wattled Honey-eater.

C. Brown del.

PLATE XXVIII.

GENUS ANELLOBIA (*Cabanis.*)

THE members of this genus are closely allied to the *Antochæra*, but differ from them in their plumage. Two species inhabit Australia, and others are found in New Guinea and the adjacent islands.

ANELLOBIA LUNULATA (*Gould.*)

LUNULATED WATTLE-BIRD.

THE present species closely resembles its congener, *Anellobia Mellivora*, in habits, and is, in fact, the representative in Western Australia of that bird. It is found in almost every part of the colony, generally among Banksia trees situated near rivers and lakes. It is particularly abundant near the Swan River. It is very pugnacious, attacking with great fierceness every bird which invades the solitude in which it delights.

During its flight, which is quick and irregular, it utters a harsh and discordant note.

It appears to have no settled time for breeding, and lays only one egg. The nest, which is placed in the fork of an upright branch of a tree, or sometimes in a small bush, is constructed of twigs, lined with fine grass and Zamia wool. The egg, which is in length one inch and two lines, and in breadth nine and a half lines, is reddish-buff in colour, with marks of chestnut-brown and chestnut-red thinly distributed over the surface.

The sexes differ in size, but not in plumage.

The crown of the head, back of the neck, and upper part of the back are deep olive-brown, the feathers being darkest in the middle; primaries, brown, the inner webs, for nearly their whole length, deep chestnut; secondaries and tertiaries, brown, margined with grey; the tail-feathers, greyish-brown, largely tipped with white; sides of the neck, silvery-grey; throat, greyish-brown, with a round, silvery-grey spot at the extremity of each feather; feathers of the chest and under surface, white, with an arrow-shaped mark of greyish-brown at the extremity of each; on each side of the chest an oblique mark of pure white; irides, dark-brown; bill, black; legs and feet, blackish-grey.

Total length, 12 inches; bill, $1\frac{5}{8}$ inch; wing, $6\frac{1}{2}$ inches; tail, $5\frac{1}{4}$ inches; tarsi, $1\frac{1}{8}$ inch.

Habitat: Western Australia.

ANELLOBIA MELLIVORA.

BRUSH WATTLE-BIRD.

WHEREVER the conditions are favourable for the growth of the *Leptospermum* (tea-tree), in Tasmania, New South Wales and South Australia, this bird is found in great abundance. It is comparatively rare in the interior of the continent, and is not found at all in Western Australia.

It is very bold and pugnacious, and effectually keeps off all other birds from the tree on which it is feeding.

Its note, which is continuously uttered by the male during spring and summer, is very harsh and disagreeable; in fact, perhaps the best description is that given by Gould, who compares it to the noise made by a person when vomiting.

The breeding season lasts from September to the end of December. A small nest, constructed of sticks, lined with fine fibrous roots, is placed in the fork of one of the small branches, often within reach of the hand. Two and sometimes three eggs are laid, of a salmon-colour, marked with blotches of deep chestnut-brown. Their length is thirteen lines and their breadth nine lines.

The female is smaller than the male, which is about equal in size to the Lunulated Wattle-bird.

The crown of the head and upper surface, dark-brown; primaries, chestnut-brown on the inner webs for three parts of their length; outer webs and the tips of the inner, brown; remainder of the wings, greyish-brown, edged with darker colour; tail-feathers, olive-brown for the greater part of their length, then grey, and finally tipped with white; feathers of the throat and chest, blackish-brown at the base, and white at the tip; feathers of the under surface, greyish-white, edged with dark brown; irides, dark grey; bill, black; feet, greyish-brown.

Habitats: New South Wales, Victoria, South Australia, and Tasmania.



ANELLOBIA LUNULATA (Loud.)
Lunulated Wattle-bird

ANELLOBIA MELANURA
Brush Wattle-bird

PLATE XXIX.

GENUS ACANTHOGENYS (*Gould*).

THIS genus, of which there is only one species, is intermediate in size and structure between the smaller Honey-eaters and those of the largest size.

ACANTHOGENYS RUFIGULARIS (*Gould*).

SPINY-CHEEKED HONEY-EATER.

THIS, one of the most interesting of the *Meliphagidæ*, is very common in the interior of New South Wales and South Australia, but is very rarely, if ever, found on the coast. Specimens have also been obtained in the interior of Western Australia.

In habits it resembles greatly the *Antochæra*, and, like them, is very shy. Its presence in any place can generally be taken as an indication of the poverty of the ground, since it almost invariably frequents *Banksiæ* and other trees which only grow on sandy, poor soil. Whilst flying, it utters a loud, whistling note, by which its presence may always be detected.

The nest, composed of grasses joined together both inside and out with wool, is suspended from one of the small branches of a low tree. The eggs, three in number, are one inch long and nine lines broad. Their colour is dull olive-buff, thickly spotted with chestnut-brown and bluish-grey.

The sexes are alike in plumage.

Crown of the head, back, and wings, blackish-brown, the primaries margined with yellow and the secondaries with greyish-white; stripe behind the eye and on the sides of the neck, black; between these is a broad line of white, with elongated dark spots; throat, chest and under surface, rufous, becoming paler towards the abdomen and flanks, where each feather is striated with darker colour; tail, brownish-black, tipped with white; irides, grey; bill, flesh-colour; legs and feet, olive-grey.

Total length, $9\frac{3}{4}$ inches; bill, $1\frac{1}{8}$ inch; wing, $4\frac{1}{2}$ inches; tail, $4\frac{1}{2}$ inches; tarsi, 1 inch.

Habitats: Interior of New South Wales, Victoria, South Australia and Western Australia.

GENUS PLECTORHYNCHA (*Gould*).

THE eastern portion of the Continent of Australia is the exclusive home of the only species of this genus which is known.

PLECTORHYNCHIA LANCEOLATA (*Gould*).

LANCEOLATE HONEY-EATER.

THE native home of this species is in the Liverpool Plains and the country near there. Away from these regions it is not found, and is nowhere abundant. It is almost always found either alone or in pairs, on Acacia or Eucalyptus trees. If it were not for its loud whistle, it would be almost impossible to discover the bird, since, for a great part of the time, it sits without movement in the thick foliage at the top of high trees.

The nest, generally suspended from a horizontal branch of a Casuarina near a stream, is formed of grasses, joined together with wool and lined with soft fibres. The eggs are of a pinkish-white colour, with small specks of reddish-buff about the larger end. They are two in number, and are eleven and a half lines long by eight lines broad.

This bird rears two broods in the year.

The crown of the head and the back of the neck are greyish-white, with a longitudinal mark of black down the centre of each feather; throat and under surface, greyish-white, the stem of each feather being pure white; back and wings, greyish-brown, each feather margined with blackish-brown; tail, light brown; irides, hazel colour; bill, legs and feet, light bluish-grey.

Total length, 9 inches; bill, 1 inch; wings, $4\frac{1}{2}$ inches; tail, $4\frac{1}{4}$ inches; tarsi, 1 inch.

Habitat: Interior of New South Wales.



1 ACANTHOGENYS RUFICULARIS (Gould)
Spiny-necked Honey-eater

2 ACANTHOGENYS LINEOLATA (Gould)
Lineolated Honey-eater

PLATE XXX.

GENUS CONOPOPHILA (*Reichenbach*).

THE two species known of this genus both inhabit the north coast of Australia.

CONOPOPHILA ALBIGULARIS (*Gould*).

WHITE-THROATED HONEY-EATER.

GILBERT first discovered this species on a little island in Van Diemen's Gulf, but it has since been found to be rather abundant in most of the swamps and mangrove islands about the north coast. It is not found in any other locality.

The song, which is very pretty, is uttered while flitting about with great activity among the branches, or while perched on those near the top of the tree.

The food consists almost entirely of insects.

It breeds in November and the two following months. The nest is formed of narrow strips of the bark of the *Melaleuca* (tea-tree) fastened together, and lined with soft fibres and grasses. It is suspended from a branch overhanging the water, and is so situated that the rays of the sun are kept off by the leaves. The eggs, either two or three in number, are in length nine lines and in breadth six lines. Their colour is white, thickly spotted with chestnut-red.

The head is grey; all the upper surface, wings and tail, brown; primaries and basal half of the tail-feathers margined with yellow; secondaries and other wing-feathers margined with dark brown; throat, white; chest and flanks, reddish-buff; centre of abdomen, white; rest of under surface, grey; irides, brown; bill, legs and feet, blackish-grey.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{5}{8}$ inch; wing, $2\frac{3}{4}$ inches; tail, 2 inches; tarsi, $\frac{3}{4}$ inch.

Habitat: Northern portion of Australia.

CONOPOPHILA RUFIGULARIS (*Gould*).

RED-THROATED HONEY-EATER.

ALMOST nothing is known of the habits and economy of this bird, which was first discovered on the northern coast of Australia by Mr. Bynoe, of H.M.S. "Beagle." It can easily be distinguished from *Conopophila Albigularis* by its smaller size and the red colour of the throat, though in structure it is closely allied to that species.

No specimens have been procured in any other part than that about the north coast.

The head, all the upper surface, ear-coverts, wings and tail are dark brown; primaries and secondaries margined externally with wax-yellow; throat, rust-red; sides of the head and all the under surface, very pale brown; irides, reddish-brown; bill and feet, dark brown.

Total length, $4\frac{3}{4}$ inches; bill, $\frac{1}{2}$ inch; wing, $2\frac{5}{8}$ inches; tail, $2\frac{1}{8}$ inches; tarsi, $\frac{5}{8}$ inch.

Habitat: North coast of Australia.

GENUS ENTOMOPHILA (*Gould*).

OF this purely Australian genus, only one species exists, viz., *Entomophila Picta*.

ENTOMOPHILA PICTA (*Gould*).

PAINTED HONEY-EATER.

THE Acacia trees in the interior of New South Wales abound in specimens of this pretty little bird, which also frequents, though to a smaller extent, the other trees which grow in that part. It is much more sprightly and active than the other Honey-eaters, and, unlike them, does not only procure insects from the trees, but also captures them when flying.

During flight it spreads out its wings and tail, the beauty of which is shown to great advantage. At the same time it utters its loud, but not melodious note.

The nest, in which two eggs are laid, is composed of fine fibrous roots, and is suspended from some of the thin twigs of a tree, generally the *Acacia Pendula* (myall).

The markings of the sexes are similar, but the female is more dull in colouring than the male.

The head, cheeks and upper surface are black, the posterior edges of the ear-coverts being tipped with white; wings, black; the outer edges of the primaries and secondaries yellow at the base, forming a conspicuous broad mark on the wing; two middle tail-feathers white, the rest black; throat and under surface, greyish-white, the flanks having a few spots of brown; irides, dark hazel; bill, yellowish-brown; legs and feet, bluish-grey.

Total length, $5\frac{1}{2}$ inches; bill, $\frac{3}{4}$ inch; wing, $3\frac{5}{8}$ inches; tail, $2\frac{5}{8}$ inches; tarsi, $\frac{5}{8}$ inch.

Habitats: Interior of New South Wales and Victoria.



1 CONOPHILA ALBIGULARIS (Gould) White-throated Honey-eater. 2 CONOPHILA RUFICOLLIS (Gould) Red-throated Honey-eater. 3 ENTOMOPHILA PICTA (Gould) Painted Honey-eater.

PLATE XXXI.

GENUS MELIORNIS (*G. R. Gray*).

THE members of this genus are confined to the southern part of Australia and to Tasmania.

MELIORNIS SERICEA (*Gould*).

WHITE-CHEEKED HONEY-EATER.

AMONG the brushes and forests of New South Wales and Victoria this species is pretty abundant, but it is never found in the interior.

Like its near congener, *Meliornis mystacalis*, it is very shy, so that it requires a great amount of patience and care to procure specimens.

It breeds from about August till the end of October or beginning of November.

On account of the very distinctive markings of the plumage, it is very conspicuous, and cannot be confounded with any other member of the genus.

Crown of the head, throat, chest and space round the eye are black; a band of white crosses the forehead and passes over each eye; a plume of white feathers spreads over the cheeks and ear-coverts; back, dark brown; under surface, white, each feather having a longitudinal mark of black; wings, blackish-brown, the outer edge of all the primaries and secondaries margined with yellow; tail, brownish-grey; irides, light brown; bill, legs and feet, black.

Total length, $6\frac{1}{4}$ inches; bill, $\frac{7}{8}$ inch; wing, $2\frac{3}{4}$ inches.

Habitats: New South Wales and Victoria.

MELIORNIS MYSTACALIS (*Gould*).

MOUSTACHED HONEY-EATER.

THIS is the Western Australian representative (and a truly beautiful one) of the *Meliornis sericea* of New South Wales. It is most abundant about the vicinity of Perth and Fremantle, but is not found in the northern part of the colony, nor in the interior.

In disposition it is very shy, and is found only in secluded parts of the forest, generally seeking for food on the top branches of Banksia trees. During the period of incubation it becomes very pugnacious, and no bird is permitted to approach the tree in which the nest is.

It flies in a most peculiar manner, going almost perpendicularly upwards from its nest, then descending rapidly to the edge of a brush, whence it proceeds horizontally, with expanded wings, between the various trees on which it procures insects. It also sometimes captures them while on the wing, as the Fly-catchers do.

It breeds from June or July to the end of November, in which time it rears two broods. Two eggs are laid in a nest constructed of small twigs and strips of bark, lined with *Zamia* wool, and, in some parts of the country, with sheeps' wool. The eggs are dull reddish-buff in colour, with well-defined spots of chestnut-brown, and some have also blotches of bluish-grey. They are nine lines long and seven lines broad.

The head, chin and throat are black; over the eye is a narrow line of white; ear-coverts, white; upper surface, brownish-black, each feather edged with white; under surface, white, with a broad strip of white down the centre of each feather; wings and tail, brown, with a conspicuous border of yellow; irides, light brown; bill and feet, black.

Total length, $6\frac{1}{2}$ inches; bill, 1 inch; wing, 3 inches; tail, $2\frac{3}{4}$ inches.

Habitat: Western Australia.

GENUS LICHMERA (*Cabanis*).

CABANIS considered that there were two species of this form, but later investigation has shown that one of them possesses very distinctive characteristics, and it has, therefore, been described under another name, *Stigmatops Ocularis*. The other one has retained the title of *Lichmera Australasiana*.

LICHMERA AUSTRALASIANA.

TASMANIAN HONEY-EATER.

THE vast, dense forests of Tasmania are the home of this bird, which is also found, though in much smaller numbers, in New South Wales, Victoria, and South Australia. It frequents especially those parts which are covered with a thick undergrowth amidst the tall *Eucalyptus* trees.

In Tasmania it procures most of its food from the flowers of the *Epacris*, a kind of heather peculiar to that country.

When feeding, one may approach close enough to it to watch its actions without its taking flight. When disturbed, it flies off and hides in a shrub, or among the branches of a small gum.

The breeding season lasts from September to the end of December. The nest, composed of narrow strips of the inner rind of the stringy-bark, lined with soft grasses, is nearly always placed in a small shrub.

The sexes differ considerably in colouring.

The male has the crown of the head and all the upper surface black, each feather being narrowly margined with white; a black stripe passes from the base of the bill through the eye, and a lunar-shaped mark extends down each side of the breast, nearly meeting in the middle; wings, blackish-brown, the primaries and secondaries margined externally with bright yellow; tail-feathers, brownish-black, fringed with yellow at the base; throat and chest, greyish-white, with a streak of brown down the middle of each feather; under surface, grey, the feathers of the centre of the abdomen bordered with white; irides, red; bill and feet, black.

The female is nearly uniform dusky-brown, and has only a faint tinge of the yellow on the wings and tail.

Habitats: New South Wales, Victoria, Tasmania and South Australia.



1. MELIORNIS SERICEA (Gould)
White-cheeked Honey-eater.

2. MELIORNIS MYSTACALIS (Gould)
Moustached Honey-eater.

3. LICHMERA AUSTRALASIANA
Tasmanian Honey-eater.

G. J. Broinowski Fecit

PLATE XXXII.

MELIORNIS LONGIROSTRIS (*Gould*).

LONG-BILLED HONEY-EATER.

THIS is the western representative of *Meliornis Novæ-Hollandiæ*, which it resembles much in size, colouring and habits. In fact, it is so like that almost the only differences are the greater size of the bill and the less sharply defined patch of white on the face.

It breeds from the beginning of July till the end of November. The eggs, either two or three in number, are laid in a nest composed of small dried sticks and fibrous roots, with a lining of *Zamia* wool or soft buds of flowers. The nest is sometimes found on one of the branches of a small tree, and at other times in a clump of grass or a bush. The eggs are a pale buff colour, tinged at the larger end with red, where also a zone is formed of spots of chestnut-brown and red. Their length is nine lines and their breadth seven lines.

The female is smaller than the male, but is alike in plumage.

Crown of the head and cheeks, black, with minute white feathers on the forehead, round the base of the upper mandible; a superciliary stripe, a moustache at the base of the lower mandible, and a tuft of feathers behind the ear-coverts, white; feathers on the throat, black, bordered with white; upper surface, brownish-black; wings, brownish-black, the outer edges margined with yellow; tail, brownish-black, margined externally with yellow; under surface, greyish-white, broadly striped with black; irides, white; bill and feet, black.

Total length, 7 inches; bill, 1 inch; wing, $\frac{3}{4}$ inch; tail, $3\frac{1}{2}$ inches; tarsi, $\frac{3}{4}$ inch.

Habitat: Western Australia.

MELIORNIS NOVÆ-HOLLANDIÆ (*G. R. Gray*).

NEW HOLLAND HONEY-EATER.

THE present species seems to be confined to Tasmania and the south-eastern portion of Australia, in both of which places it is very common. It is found in nearly every garden, among the shrubs of which it often builds its nest, and wherever the *Banksia* (honeysuckle) tree grows this bird may also be looked for confidently. It is very seldom found on high trees.

Its motions, while procuring food among the branches, are exceedingly graceful, and show off to great advantage its fine plumage.

During the breeding season, lasting from August to January, it rears two and sometimes even three broods. The nest, which is placed in a low bush, very often in a garden, is constructed of small sticks, grasses, and strips of bark woven together, and lined with the blossoms of some plants. The eggs are pale buff-colour, with small, thinly distributed spots of chestnut-brown. They are two or three in number, and are nine lines and a half long and seven lines broad.

The crown of the head and the cheeks are black, with minute white feathers on the forehead near the base of the upper mandible; upper surface brownish-black, with a superciliary stripe and a well-defined patch behind the ear-coverts white; feathers on the throat, white and bristle-like; wings and tail, brownish-black, margined with yellow on the outer edges of the feathers, and all but the two centre tail-feathers tipped faintly with white; under surface, white, broadly striped with black; irides, white; bill, legs and feet, black.

Habitats: New South Wales, Victoria, South Australia and Tasmania.

FAMILY CRATEROPODIDÆ.

GENUS POMATOSTOMUS (*Cabanis*).

MEMBERS of this genus are found in every part of Australia. They are very closely allied to the Indian *Pomatorhinus*.

POMATOSTOMUS RUFICEPS (*Hartlaub*).

CHESTNUT-CROWNED POMATORHINUS.

THIS bird was first procured by a German emigrant to South Australia, who forwarded it to Dr. Hartlaub, at the Bremen Museum. Since then specimens have been obtained in all parts of South Australia and Victoria.

In both appearance and habits it resembles more the *Pomatostomus Superciliosus* than any other of its congeners.

The female is rather more dull in her colouring than the male.

Crown of the head and nape, chestnut-brown, bounded below by a line of white; patch behind the eye and ear-coverts, blackish-brown; upper part of the back and wing-coverts, grey, each feather with a brown centre; throat, breast and centre of abdomen, greyish-white; under tail-coverts, brown, spotted with greyish-white; tail-feathers, brownish-grey, the three outer ones on each side largely tipped with white; irides, brown; bill, legs and feet, black.

Habitats: New South Wales, Victoria and South Australia.



3. POMATOSTOMOS RUFICEPS (Hartlaub)
Chestnut crowned Pomatorhinus

2. MELIORNIS NOVÆ-HOLLANDIÆ (G.R.Gray).
New Holland Honey-eater.

1. MELIORNIS LONGIROSTRIS (Go...)
Long-billed Honey-eater

Go. Br. n. v. s. k. F. 1851

PLATE XXXIII.

POMATOSTOMUS TEMPORALIS.

TEMPORAL POMATORHINUS.

IN the Apple-tree flats and Eucalyptus forests of New South Wales this species is found in considerable abundance—nearly always in large flocks.

It very often obtains its food of insects on the ground, but when disturbed, immediately resorts to the trees, which it ascends by a succession of leaps from branch to branch. It possesses very small powers of flight, and uses them only when passing from tree to tree.

The nest is constructed in the shape of a dome, and is made of long twigs, lined with soft bark and fine grasses. At the entrance, which is in the shape of a spout, the sticks are inclined towards one another, so that ingress is almost impossible without breaking the sticks, whilst egress is very easy. The eggs are four in number, one inch long by nine lines broad. Their colour is buffy-brown, with very fine lines of black, which sometimes encircle the egg, and at other times run diagonally, like the lines in marble.

The throat, centre of the breast, and a broad line over each eye are white; lores and ear-coverts, dark brown; crown of the head and back of the neck, greyish-brown, deepening into dark brown on the back and wing-coverts; wings, dark brown, the inner webs of the primaries rufous for three-fourths of the way; tail-coverts and tail, black, the latter largely tipped with yellowish-white; abdomen and flanks, reddish-brown; irides, straw-colour; bill and feet, blackish-brown.

Habitat: New South Wales.

POMATOSTOMUS RUBECULUS (*Gould*).

RED-BREASTED POMATORHINUS.

IN the Northern part of Australia the genus is represented by the present species, which differs very little in appearance or habits from *Pomatostomus Temporalis*. It inhabits the open forests, particularly on the Cobourg Peninsula. When disturbed on the ground, it ascends the trees in the same manner as its near congener. It is a very active bird, and when perched on a tree keeps up a noisy chattering.

The sexes do not differ in outward appearance.

Throat and stripe over each eye, white; chest and upper part of abdomen, brownish-red; stripe from the nostrils through each eye to the occiput, blackish-brown; crown of head, back, and lower part of abdomen and wings, dark brown, the primaries and secondaries being edged with lighter brown; tail, black, tipped with pure white; irides, straw-colour; bill and feet, blackish-grey.

Total length, $9\frac{1}{4}$ inches; bill $1\frac{1}{8}$ inch; wing, 4 inches; tail, $4\frac{3}{8}$ inches; tarsi, $1\frac{1}{4}$ inch.

Habitat: Northern part of Australia.

POMATOSTOMUS SUPERCILIOSUS.

WHITE-EYEBROWED POMATORHINUS.

THE range of this species extends over the interior of the whole of the southern portion of Australia, where it is seen in small troops of from six to ten.

It usually seeks for food on the ground underneath Banksias and other small trees, but when disturbed immediately betakes itself to the trees, uttering a shrill whistle, followed by a chattering noise. When running among the branches, it keeps the tail spread out and raised above the level of the back.

Gould says:—"This is, without doubt, the most restless, noisy and querulous bird I ever observed. When a troop are engaged in ascending the branches, which they usually do in line, they have a singular habit of suddenly assembling in a cluster, spreading out their tails and wings, and puffing out their plumage till they resemble a great ball of feathers."

It breeds from September till the end of January. The nest is constructed in the shape of a dome, the entrance in the side being hidden from view by the sticks on the upper part projecting over it. The eggs, generally four in number, are eleven and a half lines long by eight lines broad. In colour they are the same as those of *P. Temporalis*.

Lores, space round the eye, ear-coverts and crown of the head, brownish-black; a broad line of white commences at the base of the upper mandible, passes over the eye, and continues to the occiput; upper surface, abdomen, flanks and under tail-coverts, olive-brown, passing into darker brown on the wings; tail, dark brown, tipped with white; chin, throat and chest, white; irides, straw-colour; bill and feet, blackish-brown.

Habitats: Interior of New South Wales, Victoria, South Australia and Western Australia.



1. POMATOSTOMUS TEMPORALIS.
Temporal Pomatorhinus.

2. POMATOSTOMUS RUBECULUS (Gould).
Red-breasted Pomatorhinus.

3. POMATOSTOMUS SUPERCILIOSUS
White-eyebrowed Pomatorhinus.

G.J. Broinowski Fecit

PLATE XXXIV.

FAMILY CORVIDÆ.

GENUS CORVUS (*Linnæus*).

THIS is a most widely distributed genus, being found in almost every country except South America and New Zealand.

CORVUS AUSTRALIS (*Gmel.*)

WHITE-EYED CROW.

THERE is no bird more abundantly distributed over Australia than this, every part of that country being inhabited by it. Specimens from the different colonies present some slight differences, but not sufficient to justify their classification as new species. In one particular they all agree—in the white colour of the eye.

It is generally met with in pairs, but occasionally, especially when the crops in the fields are ripe, it assembles in small flocks.

The food consists of carrion, insects, berries, grains, and seeds of all kinds.

Its croak is one of the most dismal sounds to be heard in the bush, and easily explains why it is, all the world over, considered a bird of ill-omen.

During the breeding season it lays either three or four eggs in a fairly large nest made of sticks. The eggs are pale, dull green in colour, spotted all over with amber-brown. They are one inch and three-quarters long and one inch and an eighth broad.

The whole of the plumage is rich, shining purplish-black, with the exception of the elongated feathers on the throat, which are slightly glossed with green; bill and feet, black; irides, white.

Habitats: The whole of the Australian Continent and Tasmania.



CORVUS AUSTRALIS (Gmel)
White-eyed Crow

G. J. Brehmowski Fecit

PLATE XXXV.

GENUS CORCORAX (*Lesson*).

ONLY one species is known of this purely Australian genus, which possesses many very peculiar characteristics.

CORCORAX MELANORHAMPHUS.

WHITE-WINGED CORCORAX.

THIS very singular bird inhabits New South Wales, Victoria and South Australia, and also some parts of Queensland. It is generally found in groups of from six to ten, in open forest country, but during the breeding season frequents the neighbourhood of lagoons and creeks.

It is usually seen on the ground, its powers of flight being seldom used except to enable it to reach one of the low branches of a tree. It is remarkably tame, allowing an observer to come very close, and then merely flying off to the nearest tree, where it passes from branch to branch with great swiftness, spreading out its tail, and at the same time moving it up and down, thus making a very peculiar picture.

Generally its note is soft and melodious, but when disturbed it utters a harsh and unpleasant cry, as if to express its disapproval of the intrusion.

It is very amusing to watch the actions of the male during the pairing season. He perches on a branch, and, as if to show himself to the greatest advantage before the female, spreads out his wings and tail and puffs out his feathers.

The breeding season begins in August, and extends over the three following months. The nest, a structure composed of mud and straw, contains from four to seven eggs, the average length of which is one inch and a half, and the breadth one inch and one line. In colour they are yellowish-white, with large blotches of olive and brown.

Another strange thing about this bird is that apparently several females deposit their eggs in the same nest, since on trees where there is only one nest, four or five birds are seen. This, however, is as yet only conjecture.

The whole of the plumage is black, glossed with green, with the exception of the inner webs of the primaries, which are white for three parts of the length; irides, scarlet; bill and feet, black.

Habitats: New South Wales, Victoria, South Australia and Queensland.

GENUS NEOMORPHA (*Gould*).

NO member of this genus is found in Australia, the only species known being confined to New Zealand.

NEOMORPHA GOULDII (*G. R. Gray*).

HUIA.

THIS very curious bird is now found only in the neighbourhood of Port Nicholson, in New Zealand, and even there is almost extinct. It was formerly used by the natives as food, but now is procured for the sake of the tail feathers, which are used as a head-dress by the chiefs.

The Maoris obtain them by uttering a shrill whistle, which brings the birds so close to them that they can be knocked down with sticks.

The food consists of seeds and insects of various kinds.

The sexes differ in the size and shape of the bill, a difference which caused Gould to consider them as different species.

The whole of the plumage is black, glossed with green, the tail tipped with white; bill, horn-colour, darker at the base; wattles, rich orange; legs and feet, blackish horn-colour; irides, light brown.

Habitat: New Zealand.



1. *CORCORAX MELANCRAMPUS*
White-winged Juncorax.

2. *NEOMORPHA GOULDII* (Gray)
H. J.

C. B. Smith & Co. Febr.

PLATE XXXVI.

GENUS STRUTHIDEA (*Gould*).

THE one known species of this genus is confined to the interior of the eastern and southern portions of Australia.

STRUTHIDEA CINEREA (*Gould*).

GREY STRUTHIDEA.

THIS species, which closely resembles the *Corcorax* in habits, is found only in the interior, more especially on the pine ridges near the Namoi River. It there generally frequents the *Callitris Pyramidalis*, a kind of fir, the seeds of which, with insects, constitute its food. Its actions among the branches are very much the same as those of the *Corcorax Melanorhamphus*.

Gilbert, who was the first to find the nest, believed that it was an old one of a *Grallina*, but on further investigation found that he was mistaken, as, although built in the same manner, of mud and straw, it was constructed by this bird. It, moreover, differs from the nest of the *Grallina* in being lined with fine grass.

The eggs, generally four in number, are white in colour, with irregular blotches of brown and grey. They are one inch and a quarter long and seven-eighths of an inch broad.

The head, neck, back and under surface are grey, each feather tipped with lighter grey; wings, brown; tail, black, the middle feathers glossed with green; irides, white; bill, legs and feet, black.

The sexes do not differ in colouring.

Total length, $11\frac{1}{2}$ inches; bill, $\frac{3}{4}$ inch; wing, $5\frac{1}{4}$ inches; tail, 6 inches; tarsi, $1\frac{1}{2}$ inch.

Habitat: Interior of the eastern and southern parts of Australia.

GENUS SERICULUS (*Swainson*).

THIS genus, interesting before on account of many peculiarities, has been rendered more so by the discovery that, like the members of the genera *Chlamydodera* and *Ptilinorhynchus*, it constructs a bower similar in character to those of the latter birds.

SERICULUS MELINUS (*G. R. Gray*).

REGENT-BIRD.

THE Regent-bird, one of the most beautiful of the Australian fauna, is found only on the eastern coast, and very seldom further south than Sydney.

The food consists of berries, insects and fruits—especially the banana.

One very peculiar point about it is, that although before assuming its full plumage it is very bold and tame, it afterwards becomes very shy, so that to obtain a specimen of a full-plumaged male is a matter of great difficulty.

The breeding season is in November and December, when it builds a nest of sticks, without any lining, in which two eggs are laid.

It lives and becomes fairly tame in confinement.

Mr. Coxen, of Brisbane, was the first to draw attention to the fact that it builds a bower in which to disport itself, after the manner of the Bower-birds. The bower is formed of small twigs and decorated with a species of helix. It cannot be mistaken for that of any of the Bower-birds, since it differs both in its smaller size and in many points of construction.

The sexes differ considerably in appearance.

The male has the head and back of the neck, running in a rounded point towards the breast, bright yellow, tinged with orange; the remainder of the plumage, with the exception of the secondaries and inner webs of the primaries, velvety-black; secondaries and inner webs of the primaries, yellow; tail, brownish-grey; irides and bill, yellow; legs and feet, brownish-black.

The female has the head and throat dull brownish-white, with a large patch of deep black on the crown; all the upper surface, wings and tail, pale olive-brown, the feathers of the back with a triangular-shaped mark of brownish-white near the tip; the under surface is the same, except that the white markings become much larger; irides, brown; bill and feet, black.

Habitat: Eastern coast of Australia.



1. STRUTHIDEA CINEREA (Gould)
Grey Struthidea.

2. SERICULUS MELINUS (G.R.Gray)
Regent Bird

C.J. Broinowski Feat

PLATE XXXVII.

GENUS SPHECOTHERES (*Vieillot*).

TWO species of this genus are found in Australia, and others in New Guinea and the adjacent islands.

SPHECOTHERES MAXILLARIS (*G. R. Gray*).

SOUTHERN SPHECOTHERES.

THE range of this species extends from the north coast down as far as the Hunter River, though its principal abode is in the brushes near the Clarence River, and the southern parts of Queensland.

It feeds on berries and insects, obtained principally in the brushes, and in all other habits resembles the members of the genus *Mimeta*.

The difference in colouring between the sexes is very striking.

The male has the crown of the head and the cheeks black; orbit, and a narrow space leading to the nostrils, naked, and of a light yellow; throat, chest and collar at the back of the neck, dark slate-grey; upper and under surface, greenish-grey; primaries and inner webs of secondaries, black; tail, black, all the feathers more or less tipped with white; bill, black; irides, hazel; legs and feet, flesh-colour.

The female has the upper surface brown, each feather with a darker centre; wings, dark brown, primaries and secondaries edged with greenish-grey; under surface, buffy-white, each feather with a mark of brown down the centre; tail, brown, each feather edged on the inner web with white.

Habitats: Northern and north-eastern coast.

SPHECOTHERES FLAVIVENTRIS (*Gould*).

NORTHERN SPHECOTHERES.

MR. MACGILLIVRAY was the first to discover this bird, while in the neighbourhood of Cape York, where it is to be found in considerable numbers, though, on account of its shyness, it is very difficult to obtain specimens.

Unlike its congener, *Sphecotheres Maxillaris*, it frequents open forest country, either in pairs or in small companies of three or four. It is also very often seen with the *Tropidorhynchus Argenticeps*. The nest, built of small sticks, lined with finer ones, is generally placed on one of the topmost branches of a high gum-tree, and is thus very difficult to obtain.

As in the other species of this genus, the sexes differ greatly in plumage.

The male has the crown of the head and the cheeks black; orbits and narrow space leading to the nostrils, flesh-colour; all the upper surface and wing, greenish-grey, the primaries and secondaries edged with black; chest, abdomen, and flanks, light yellow; vent and under tail-coverts, white; tail, black, tipped with white; bill, black; irides, light brown; legs and feet, flesh-colour.

The female has the head striated with brownish-white; the upper surface, olive-brown; under surface, white, with a mark of brown down each feather; vent and under tail-coverts, white, without striae.

Total length of male, $10\frac{1}{2}$ inches; bill, $1\frac{1}{8}$ inch; wing, $5\frac{3}{4}$ inches; tail, $4\frac{1}{4}$ inches; tarsi, $\frac{7}{8}$ inch.

Habitat: North coast of Australia.



SPHECOTHERES MAXILLARIS (G.R.Gray)
Southern Sphecotheres.

SPHECOTHERES FLAVIVENTRIS (Gould)
Northern Sphecotheres.

G J. Broinowski Feilt.

PLATE XXXVIII.

GENUS MIMETA (*Vig. and Horsf.*)

OF this genus, which is closely allied to *Oriolus*, two species inhabit Australia, and others the islands to the northward.

MIMETA VIRIDIS (*Vig. and Horsf.*)

NEW SOUTH WALES ORIOLE.

NEW SOUTH WALES and part of Victoria appear to be the exclusive home of this species, which is there found in companies, from five to about twenty in number, generally in the neighbourhood of orchards or gardens containing Moreton Bay fig-trees, of the fruit of which it is very fond. It also feeds on berries and insects, capturing the latter when on the wing.

Its note is very melodious, and it also imitates many of the other birds of the forest.

For information about the nidification we are greatly indebted to Dr. Ramsay, who has made very complete and valuable notes on it. The nest, which is placed on a horizontal branch of a *Eucalyptus* or *Melaleuca* (tea-tree), is composed of narrow strips of the bark of the stringy-bark tree, lined in the inside with the leaves of the native oak, or with grass and hair. The eggs, which range from four to two in number, are of a cream-colour, with spots of brown and also faint blotches of lilac distributed over the surface. In length they are one inch and three lines, and in breadth ten or eleven lines. The breeding season lasts from the beginning of October to the middle of January.

The sexes scarcely differ in colouring, except that the male has the upper surface of a slightly deeper tint than the female.

The head and all the upper surface, greenish-olive; wings and tail-feathers, olive-brown; the outer webs of the coverts and secondaries, grey, edged with white; under surface, white, each feather with a mark of black down the centre; bill, flesh-red; irides, scarlet; legs and feet, olive-grey.

Habitats: New South Wales and part of Victoria.

MIMETA FLAVOCINCTA (*Vig. and Horsf.*)

CRESCENT-MARKED ORIOLE.

ALL the specimens of this bird yet obtained were procured on the north coast of Australia, generally in the mangrove swamps of that region.

Although in the islands to the northward of Australia there are other species of the same genus, of considerably larger size, there are none with such fine plumage.

On account of the out-of-the-way locality in which it is found, and its scarceness even there, almost nothing is known of its habits.

The female is smaller than the male, and presents some slight differences of colouring.

The male has the head and all the upper and under surface greenish-olive, with an elongated mark of black down the centre of each feather; tail, brownish-grey, the feathers tipped with yellow; wings, brown, all the feathers margined with yellow; bill, red; irides, scarlet; legs and feet, black.

Habitat: North coast of Australia.



MIMETA VIRIDIS (Vig & Horsf)
New South Wales Oriole,

MIMETA FLAVOCINCTA (Vig & Horsf)
Crescent Marked Oriole

G.J Broinowski Fecit.

PLATE XXXIX.

GENUS CHLAMYDODERA.

THIS genus, of which there are four varieties, is very remarkable for the bowers or playing-places which it builds, and in which it spends a great deal of its time. For some time after these structures were noticed, they were thought to be cradles made by the aborigines for their children, but after a great deal of observation their true use was discovered. They must not be confused with the nest, which is entirely separate.

CHLAMYDODERA NUCHALIS.

GREAT BOWER-BIRD.

THIS curious bird, which was first described by Jardine and Selby under the name of *Ptilonorhynchus Nuchalis*, is sparsely distributed over the north-western coast of Australia.

Beyond the fact that it constructs a bower, very little is known of its habits. To make the bower, twigs are stuck in the ground and their tops inclined towards one another, the ground inside being strewn with shells. Here, during the pairing season, the birds disport themselves, the males apparently seeking to gain the favour of the females. The structure is generally about $2\frac{1}{2}$ feet long, and $1\frac{1}{2}$ feet wide at each end.

The head and all the upper surface are greyish-brown; feathers of the back, wing-coverts and tail, tipped with greyish-white; on the nape of the neck a rose-pink fascia, consisting of narrow feathers; under surface, yellowish-grey, the flanks tinged with brown; irides, bill and feet, brownish-black.

The female is destitute of the fascia on the back of the neck.

Habitat: North-western portion of Australia.

CHLAMYDODERA MACULATA (*Gould*).

SPOTTED BOWER-BIRD.

THE Spotted Bower-bird inhabits the interior of New South Wales, in the brushes of which it is rather abundant.

In disposition it is extremely shy, so that it is very difficult to approach near enough to observe its appearance or habits. When disturbed it utters a harsh note and flies to the top of a high tree.

The bower, which is a much more elaborate structure than that of the *Chlamydodera Nuchalis*, is formed like it of twigs, the space covered, however, being much larger, and the inside of the walls being lined with long grasses. Shells and bones of all kinds are used for decorating the interior, and there is always a heap of these materials before the entrance at both ends. Several birds make use of the same bower.

In general habits this bird resembles the Satin Bower-bird.

The nest is built on a small tree, very often overhanging a waterhole, and is generally situated in the vicinity of the bower. It is constructed of dried twigs, lined with fine grasses and feathers.

Crown of the head, ear-coverts and throat, rich brown, each feather surrounded by a narrow line of black; a band of rose-pink feathers crosses the back of the neck, forming a broad occipital crest; all the upper surface, wings and tail, deep brown, each feather of the back, scapularies and secondaries tipped with a large, round spot of rich buff; all the tail-feathers tipped with buffy-white; under surface, greyish-white; irides, dark brown; bill and feet, blackish-brown.

Total length, $11\frac{1}{4}$ inches; bill, $1\frac{1}{4}$ inch; wing, 6 inches; tail, $6\frac{3}{4}$ inches; tarsi, $1\frac{5}{8}$ inch.

Habitats: Interior of New South Wales and some of the southern portion of Queensland.



1. CHLAMYDODERA NUCHALIS.
Great Bower-bird

2 CHLAMYDODERA MACULATA (Gould)
Spotted Bower-bird

PLATE XL.

GENUS CALORNIS (*G. R. Gray*).

SEVERAL species of this genus have been discovered in the islands adjacent to Australia, but only one inhabits that continent.

CALORNIS METALLICA (*G. R. Gray*).

SHINING CALORNIS.

THIS species is found in the northern part of Australia, and also in most of the islands of the East India group.

Its food consists principally of seeds and berries.

The most peculiar thing about this bird is that a great number always build together, sometimes as many as fifty or sixty nests being found on the same tree. The nest is composed of portions of climbing plants interwoven together, and lined with strips of bark, small leaves and fine fibres. The eggs are a bluish-grey colour, thinly spotted with pink, though in some there are no markings. They are either two or three in number, and are one inch long and four-fifths of an inch broad.

The sexes do not differ in appearance.

The general plumage is a mixture of dark green and purple; the wings and tail are bluish-black, washed on the margins with bronzy-green; irides, red; bill and feet, black.

Habitats: Northern part of Australia, and most of the islands from there northwards to the coast of China.

PTILONORHYNCHUS RAWNSLEYI (*Digg*).

RAWNSLEY'S BOWER-BIRD.

IT is very difficult to decide whether this is a distinct species, or a hybrid between the Satin-bird and the Regent-bird. It certainly partakes of the nature and appearance of both birds; but, on the other hand, there is the fact that hybrids between different species very rarely, if ever, exist in a state of nature. However, further investigation may clear up this point.

It inhabits the brushes of Queensland, where, like both the before-mentioned species, it builds a bower.

It was first brought under notice by Mr. Rawnsley, of Brisbane, though it had been seen before by Mr. Gregory, the explorer, in his expedition from the Gulf of Carpentaria to Brisbane.

The head, neck, chest, abdomen, back, and tail-coverts are rich blue; primaries, black, except a small portion of the outer webs and a large portion of the inner webs, near the base, which are orange-yellow; secondaries, orange-yellow, edged on the basal portion with black, and with a patch of black near the tips; tail, rich blue, all the feathers, except the two middle ones, tipped with golden-brown; irides, greenish-blue; bill and feet, olive-black.

Total length, $11\frac{1}{4}$ inches; wing, 6 inches; tail, 4 inches; tarsi, $1\frac{3}{4}$ inch; bill, $1\frac{1}{4}$ inch.

Habitat: Queensland.

CHLAMYDODERA GUTTATA (*Gould*).

GUTTATED BOWER-BIRD.

THIS bird was first spoken of by Sir George Gray, who discovered in several places its bowers, about which he was greatly puzzled till informed of their use. A specimen was first obtained by Mr. T. F. Gregory during his explorations in the north-western part of Australia.

It resembles the *Chlamydodera Maculata* in many respects, but is larger.

Nothing is known of its habits, beyond the fact that it constructs a bower like the other members of the genus.

The upper surface and wings are brownish-black, with a spot of rich buff at the tip of each feather; the primaries are pale brown; tail-feathers, pale brown, with buff shafts and white tips; under surface, buffy, the flanks barred with pale brown; bill, black; feet, dark olive.

Total length, $11\frac{1}{2}$ inches; bill, $1\frac{1}{4}$ inch; wing, 6 inches; tail, $4\frac{1}{4}$ inches; tarsi, $1\frac{3}{4}$ inch.

Habitat: North-western part of Australia.



1 CALORNIS METALLICA (G R. Gray) 2 PTILONORHYNCHUS RAWNSLEYI (Diss.)
 Shining Calornis Rawnsley's Bower-bird
 3 CHLAMYDODERA GUTTATA (Gutt.)
 Guttated Bower-bird

PLATE XLI.

GENUS PTILONORHYNCHUS (*Kuhl*).

THERE are two members of this genus, both inhabiting Australia.

PTILONORHYNCHUS HOLOSERICEUS (*Kuhl*).

SATIN BOWER-BIRD.

THE range of this species extends along the east coast, from Victoria to the southern part of Queensland. It is confined to the brushes in those parts, and is never found far in the interior.

Its food consists of berries and fruits, particularly the fruit of the Moreton Bay fig-tree, which abounds in those localities. It also feeds to a small extent on insects.

When feeding it is possible to approach very near to it, but at other times it is very shy, and on the least disturbance flies to the top of some high tree.

It is found sometimes singly and at other times in small flocks.

Its bower is one of the most elaborate constructed by any of this class of birds. First of all it makes a platform of sticks, on which it builds the bower. This is formed of twigs and grasses, curved inwards, so as to nearly meet at the top. The inside is decorated with the feathers of different birds, and the floor and entrances are strewn with shells, bones and other articles, collected from the whole country around.

When in captivity it builds a bower every year, and thus it has been possible to watch the process.

The sexes differ so materially in colouring that both have been figured on the plate.

The male has the whole of the plumage deep blue, with the exception of the wings and tail, which are black, edged with blue; irides, light blue, with a circle of red round the pupil; bill, bluish horn-colour, yellow at the tip; legs and feet, brownish-yellow.

The female has the head and upper surface greyish-green; wings and tail, dark brown, the feathers edged with darker colour; under surface, greenish-yellow, each feather having a crescent-shaped mark of dark brown near the extremity; irides, blue, with a red ring round the pupil; bill, dark horn-colour; legs and feet, light green.

Habitats: The coast of Victoria, New South Wales, and part of Queensland.



1 Male

1 & 2

PTILONORHYNCHUS

HOLOSERICUS (Kuhl)

2 Female

Satin Bower bird

PLATE XLII.

GENUS AILURÆDUS (*Cabanis*).

THIS genus differs from *Ptilonorhynchus* in the colouring of the plumage and in the structure of the bill.

AILURÆDUS SMITHII (*Vig. and Horsf.*)

CAT-BIRD.

THIS very peculiar bird inhabits the brushes of the east coast of New South Wales—in fact, very much the same localities as those frequented by the Regent-bird and Satin-bird.

Its food consists of berries and wild fruits, and sometimes, but rarely, of insects.

It is very bold in disposition, and may be approached closely either when feeding or when perched on a tree.

Its note is a most extraordinary one, and can be compared to nothing but that of the animal from which it takes its name. In fact, as Gould says, when several are uttering it, the noise resembles much the nightly concerts of cats on the house-tops.

It is not certain if this bird constructs a bower, but it is most probable that it does so.

The head is olive-green; back, wings, and tail, dark green; the wing-coverts and secondaries with a spot of white at the extremity of their outer webs; tail-feathers tipped with white; all the under surface olive-green, with a mark of white down the centre of each feather; irides, brown; bill, light horn-colour; legs and feet, blackish-brown.

Habitats: New South Wales, northern part of Victoria, and southern part of Queensland.

CHLAMYDODERA CERVINIVENTRIS (*Gould*)

FAWN-BREASTED BOWER-BIRD.

MR. MACGILLIVRAY first discovered this species at Cape York, during the voyage of H.M.S. "Rattlesnake."

It is distinguished from the other members of the genus principally by its buff-coloured under surface.

The bower is also different from those of the others, in having the walls almost upright, and in being very narrow. In other respects it is very much the same. It is about 4 feet in length and 18 inches high.

In disposition the bird is very shy and wary.

The upper surface is brown, each feather of the back and wings margined with buffy-white; under surface, light fawn-colour; irides, brown; bill, legs and feet, black.

Total length, $11\frac{1}{2}$ inches; bill $1\frac{1}{4}$ inch; wings, $5\frac{3}{4}$ inches; tail, 5 inches; tarsi, $1\frac{1}{8}$ inch.

Habitat: North coast.



1. AILURÆDUS SMITHII. (Vig & Horsf.)
Cat-bird

2. CHLAMYDODERA CERVINIVENTRIS (Gould.)
Fawn-breasted Bower-bird

G. J. Broinowski, Fecit

PLATE XLIII.

GENUS CINCLOSOMA (*Vig. and Horsf.*)

IN nearly every part of Australia one of the four members of this genus is found. It does not exist in any other country.

CINCLOSOMA PUNCTATUM (*Vig. and Horsf.*)

SPOTTED GROUND-THRUSH.

THE range of this species is very great, extending, as it does, along the eastern and southern coast from Brisbane to South Australia. It is also found over the whole of Tasmania. It is generally found on the summits of rocky gullies, where it seeks its food among the scrub and underbrush. When disturbed it rises with a burring noise, but soon descends again to the ground, when it runs along with great swiftness and hides among the bushes. Its power of flight is very small, and is rarely used, except to cross a gully or to pass from one bush to another. It very seldom perches on branches of trees, but may be often seen running along the fallen trunks, stopping now and again to search for insects.

The note of this bird is a low and rather musical whistle, several times repeated.

The flesh makes very good eating, and is often sold in the markets under the name of the Ground-dove.

The breeding season lasts from October to the end of January. Two and sometimes three eggs are laid in a nest constructed of leaves and strips of bark, and placed on the ground, under the shelter of a large stone or stump. The eggs are white in colour, with numerous blotches of olive-brown distributed over the surface, particularly at the larger end.

The forehead and chest are light grey; crown of the head, back and wings, brown, each feather of the back having a stripe of black down the centre; throat and a band across the chest, black; wing-coverts, black, each feather tipped with white; a stripe over the eye, a large mark on the side of the neck, and the abdomen, white; flanks, yellowish-buff, with a stripe of black down the centre of each feather; primaries and secondaries, brown, margined with darker colour; tail-feathers, black, tipped with white; bill, black; legs and feet, yellowish-buff.

The female has the throat greyish-white, and has not the band across the chest.

Habitats: Queensland, New South Wales, Victoria, South Australia, and Tasmania.

CINCLOSOMA CASTANEONOTUM (Gould).

CHESTNUT-BACKED GROUND-THRUSH.

THIS is the representative in the interior of the *Cinclosoma Punctatum*, from which bird, however, it differs in some important particulars. The principal difference is that it inhabits, chiefly, plains studded with small trees and bushes, and open forest country. In some places, however, it is found in the same rocky and barren situations which are favoured by its congener.

It is of a very shy and timid disposition, so that it requires a great deal of energy and patience to procure specimens.

It is found in small troops of from five to six, generally running with great ease and swiftness from one scrub to another, taking to its wings when passing over any intervening plains.

On dissection, the stomach, which is very muscular, is found to contain seeds and Coleopterous insects.

Its breeding time and mode of nidification do not materially differ from those of the *Cinclosoma Punctatum*.

The crown of the head, ear-coverts, upper part of the back, upper tail-coverts, and two central tail feathers are brown; a stripe over the eye and one down the side of the neck, white; scapularies and lower part of the back, rich chestnut-red; wing-coverts, blackish-brown, tipped with white; throat and centre of the breast and lateral tail-feathers, black, the latter tipped with white; primaries and secondaries, dark brown, margined with lighter brown; side of the chest, grey; flank, buff, each feather marked with black, centre of abdomen, white; irides, brownish-buff; bill, black; legs and feet, blackish-brown.

The female has the whole of the plumage lighter and not so distinctly marked.

Total length of male, 9 inches; bill, 1 inch; wing, $4\frac{1}{4}$ inches; tail, $4\frac{1}{2}$ inches; tarsi, $1\frac{1}{4}$ inch.

Habitats: Interior of New South Wales, Victoria, South Australia, and Western Australia.



1 CINCLOSOMA PUNCTATUM (Vig & Horsf) 2 CINCLOSOMA CASTANEONOTUM (Gould)
 Spotted Ground-Thrush. Chestnut-backed Ground-Thrush

PLATE XLIV.

CINCLOSOMA CINNAMONEUM (*Gould*).

CINNAMON-COLOURED CINCLOSOMA.

THIS *Cinclosoma*, which is a native of the interior of South Australia, differs from the other members of the genus in its smaller size and in the cinnamon-colour pervading its plumage, but in habits and characteristics is very much the same as them.

The first specimen was procured by Sturt, the explorer, but since that many others have been obtained.

The female differs slightly in colouring from the male.

The crown of the head, upper surface, two central tail-feathers, sides of the breast and flanks are cinnamon-brown; wing-coverts, black, tipped with white; lores and throat, black; under the eye, a stripe of white; under-surface, white, with a broad band of black crossing the breast; lateral tail-feathers, black, tipped with white; bill and legs, olive; feet, black; irides, light-brown.

Total length, $7\frac{1}{2}$ inches; bill, $\frac{7}{8}$ inch; wing, $3\frac{3}{4}$ inches; tail, $3\frac{1}{4}$ inches; tarsi, $1\frac{1}{8}$ inch.

Habitat: Interior of South Australia.

CINCLOSOMA CASTANEOTHORAX (*Gould*).

CHESTNUT-BREASTED GROUND THRUSH.

IN size this bird is very nearly equal, but differs from it in colouring. It is an inhabitant of Queensland, particularly of the table land, which is in the southern part.

Its habits and methods of nidification are the same as those of its congeners.

It was first discovered by Mr. Coxen, in the forest-land near the Darling Downs.

The crown of the head, upper surface, primaries and secondaries, dark brown, the latter margined with light brown; a stripe over the eye, and one underneath down the side of the neck, white; throat, wing-coverts and tail-feathers, greenish-black, the wing-coverts and tail tipped with white; scapularies, rust-red; centre of abdomen, white; band across the chest, rust-red; irides, yellow; bill, legs and feet, black.

Total length, $8\frac{1}{2}$ inches; bill, 1 inch; wing, 4 inches; tail, $4\frac{1}{4}$ inches; tarsi, 1 inch.

Habitat: Queensland.

GENUS OREOCINCLA (*Gould*).

SEVERAL members of this genus inhabit India and the adjacent islands. Only one is found in Australia.

OREOCINCLA LUNULATA.

MOUNTAIN THRUSH.

THE Mountain Thrush is found in New South Wales, Victoria, Tasmania, and sometimes, but rarely in South Australia. It generally inhabits the thick forests on the sides of mountain ranges, or the banks of rocky gullies and creeks.

A certain amount of difference of size and colouring exists between specimens from Tasmania and those obtained on the continent, but not enough to warrant their separation into two species.

Its food consists chiefly of insects, seeds and berries, in search of which it may be seen generally in pairs, hopping over the ground. Like the *Cinclosomæ*, its powers of flight are very small and seldom exercised. Its note is a rather musical and pleasing whistle.

It breeds in August and the two following months, when it builds a nest of moss and fibrous roots on one of the low branches of a tree. The eggs, the average length of which is one inch and three-eighths, and the breadth seven-eighths of an inch, are light buff-colour, speckled with reddish-brown.

The whole of the upper surface, wings and tail are olive-brown, each feather narrowly margined with black; under surface, white, tinged with buff on the breast and flanks, each feather, except those of the centre of the abdomen and under tail-coverts, with a lunar-shaped mark of black near the tip; irides, dark brown; bill, dark horn-colour; legs and feet, olive.

Habitats: New South Wales, Victoria, South Australia and Tasmania.



1 CINCLOSOMA CINNAMOMEUM. (Gould)
Cinnamon-coloured Cinclosoma.

2 CINCLOSOMA CASTANEOTHORAX (Gould)
Chestnut-breasted Ground-Thrush.

3 OREOCINCLA LUNULATA
Mountain-Thrush.

PLATE XLV.

PITTA IRIS (*Gould*).

RAINBOW PITTA.

THIS species, of which very little is known, inhabits the northern part of Australia, especially the Cobourg Peninsula. It is found among the cane-beds and swampy places near the coast.

Unfortunately, next to nothing is known of its habits and manner of breeding.

The head, neck, breast, abdomen and thighs are black; over the eye, extending to the occiput, is a band of ferruginous brown; upper surface and wings, green; shoulders very light green; tail, black, tipped with green; vent and under tail-coverts, scarlet, separated from the black of the abdomen by an irregular band of yellowish-brown; irides, light brown; bill, black; legs and feet, light olive-brown.

Total length, 7 inches; bill, $1\frac{1}{8}$ inch; wing, 4 inches; tail, $1\frac{3}{4}$ inch; tarsi, $1\frac{1}{2}$ inch.

Habitat: North Coast of Australia.

GENUS PITTA (*Veillor*).

THIS genus has an extensive range from India through all the islands between there and Australia. Four species are found in the latter country.

PITTA MACKLOTI (*Müll et. Schley*).

MACKLOTS PITTA.

THE home of this Pitta is Cape York Peninsula, on the north coast of Australia, and also New Guinea and some of the adjacent islands. It is fairly abundant there, particularly in rocky places overgrown with scrub and creeping plants.

It chiefly remains on the ground, but sometimes perches on the top branches of a tree, where, on account of its stillness, it generally eludes observation. Even its whistle does not betray it, since it is a perfect ventriloquist, the note always seeming to come from a totally different part of the forest.

The nest is placed in a small tree or stump, often within reach of the hand. It is composed of grasses and vegetable fibres. The eggs, three in number, are of a creamy-white colour, streaked and speckled all over with purple. They vary in size, but average about one inch and a sixteenth in length, and about seven-eighths of an inch in width.

The crown of the head, throat, ear-coverts and back of the neck are dark reddish-brown; upper part of the chest, black; across the chest is a broad band of light-blue, below which is a narrow one of black; all the rest of the under surface, scarlet; back and scapularies, dark green; wing-coverts and secondaries, blue; a white spot on the shoulder; primaries, black, the third and fourth having a patch of white near the base; rump and tail, blue; irides, brown; bill, black; legs and feet, light brown.

Habitats: Cape York Peninsula and New Guinea, and other islands near.



1. PITTA MACKLOTI (Müll & Schleg). 2. PITTA IRIS. (Gould)
 Macklot's Pitta. Rainbow Pitta

PLATE XLVI.

PITTA VIGORSI (*Gould*).

VIGORS' PITTA.

THE present species was considered by Vigors to be identical with the *Pitta Brachyura*, but on further investigation it was found to differ in many respects from that bird, and was therefore named by Gould after its discoverer.

It is found on the north coast of Australia and in some of the adjacent islands.

As is the case with very many birds from the same part, nothing important has been discovered about its habits.

The head and back of the neck are black, with an irregular band of white over the eye; upper surface and wings, dark green; shoulders and lesser wing-coverts, light green; primaries, dark brown, crossed near the base by a band of white; tail, black at the base, green at the tips; rump, light green; throat, white; breast, light buff; lower part of abdomen and under tail-coverts, bright scarlet; irides, dark brown; bill, brown; legs and feet, flesh-colour.

Habitat: North coast and adjacent islands.

PITTA STREPITANS (*Temm*).

NOISY PITTA.

THIS is an inhabitant of the east coast of Queensland and part of New South Wales. Specimens, with slight differences, have also been obtained from the north coast.

It procures its food of insects, berries and fruits principally on the ground, over which it runs with great facility, but on being disturbed flies off to the nearest tree.

It is generally bold, but during the breeding-season becomes very shy, and resorts to all kinds of expedients to draw attention from its nest. The eggs, four in number, are laid in a nest composed of sticks lined with moss, leaves and bark, and placed in a fork of a tree, generally a fig tree. The eggs are of a creamy-white colour, with spots and blotches of brown and brownish grey. Their length is one inch and a quarter, and their breadth seven-eighths of an inch.

The sexes do not differ in colouring.

Crown of the head rust-red, with an oval-shaped mark of black in the centre; chin, throat and sides and back of the neck, black; back and wings, green; lesser wing-coverts and rump, light green; a band of white across two of the primaries; throat, breast and flanks, buff; in the centre of the abdomen, an irregular patch of black; vent and under tail-coverts, bright scarlet; irides, buffy white; bill, dark brown; legs and feet, light olive-brown.

Habitats: Coast of Queensland, New South Wales, and also the north coast.



1. PITTA VIGORSI. (Gould)
Vigors Pitta

2. PITTA STREPITANS. (Ternm.)
Noisy Pitta

PLATE XLVII.

GENUS MERULA.

TWO members of this genus inhabit islands adjacent to Australia, viz., Norfolk Island and Lord Howe's Island, but none are found on the continent itself.

MERULA POLISOCEPHALA.

GREY-HEADED BLACKBIRD.

UNDER the mistaken impression that he was the first to describe it, Gould named this bird *Merula Mestor*, but afterwards found out that it had been written of long before by Latham, under the title of *Turdus Poliocephalus*.

It inhabits Norfolk Island, where it was once very plentiful, but has been almost entirely destroyed by the convicts and Government officers who lived there.

On account of the scarcity, it has been impossible, since attention was drawn to it, to discover anything about its economy; but, with so many ardent and energetic naturalists, it will surely not be long before a complete investigation is made.

The colouring of the sexes is the same, but the female is slightly smaller than the male.

The head, neck and front of the throat are light brown; the remainder of the plumage, black; bill and feet, yellow.

Habitat: Norfolk Island.

MERULA VINITINCTA.

VINOUS-TINTED BLACKBIRD.

MR. MACGILLIVRY first procured specimens of this bird, a native of Lord Howe's Island, and forwarded them to Gould, who described them in his work. As he says, it is a very curious fact that none of this common European genus should inhabit Australia or New Zealand, and yet that in two islands about midway between there should be two distinct species.

It closely assimilates in size and form to *Merula Poliocephala*, but, as with that bird, very little is known of its habits.

The head, upper surface and wing-coverts are brown; wings, brown, margined with olivaceous; throat, grey; under surface, brownish-red; tail, brown; bill, legs and feet, yellow.

Total length, 8 inches; bill, 1 inch; wing, $3\frac{1}{8}$ inches; tail, $3\frac{3}{8}$ inches; tarsi, $1\frac{1}{4}$ inch.

Habitat: Lord Howe's Island.



1. MERULA POLIOCEPHALA.
Grey-headed Blackbird

2. MERULA VINITINCTA
Vinous-tinted Blackbird

PLATE XLVIII.

GENUS DONACOLA (*Gould*).

OF this class of Australian Finches there are two species, one inhabiting the east coast and the other the north-west coast.

DONACOLA CASTANEOTHORAX.

CHESTNUT-BREASTED FINCH.

THE reed-beds on the banks of rivers and lagoons on the east coast of Australia abound in specimens of this bird. It does not inhabit the interior of the north coast.

Its long claws enable it to run up the stems of the reeds with great facility, and it is often to be seen perched on the topmost parts, which would seem at first sight too thin to bear the weight.

During the breeding season it constructs of bark a fairly large nest, which is generally placed on a branch of a *Melaleuca* (Tea-tree), overhanging a pool or stream of water.

The sexes are the same in plumage.

The crown of the head and the back of the neck are grey, with a spot of brown in the centre of each feather; cheeks, throat and ear-coverts, blackish-brown; upper surface and wings, reddish-brown; tail, brown; across the chest is a broad band of pale chestnut, below which is a line of white feathers, the base being black. This line extends along the flanks. Abdomen, greyish white; irides, reddish brown; bill, black; feet, brown.

Total length, 4 inches; bill, $\frac{5}{8}$ inch; wing, $2\frac{1}{8}$ inch; tail, $1\frac{1}{4}$ inch; tarsi, $\frac{2}{5}$ inch.

Habitat: East coast of Australia.

DONACOLA PECTORALIS (*Gould*).

WHITE-BREASTED FINCH.

THIS is one of the many birds from the north-west coast, for which science is indebted to the officers of the "Beagle," one of whom, Mr. Dring, procured the first specimen, which he forwarded to Gould.

In form and colouring it assimilates to the *Donacola Castaneothorax*, which bird it also closely resembles in habits and manner and time of nidification. Like it, too, it is found among the reeds growing in swampy situations, and on the banks of rivers.

The crown of the head, all the upper surface, and wings, grey; the tips of the wing-coverts, spotted with white; tail, blackish-brown; throat and ear-coverts, dark purple; chest crossed by a band of white feathers, black at the base; under surface, buffy grey; irides, brown; bill, bluish horn-colour; legs and feet, flesh-colour.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{1}{2}$ inch; wing, $2\frac{1}{4}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{5}{8}$ inch.

Habitat: North-west coast of Australia.

GENUS MUNIA (*Hodgson*).

THERE are three species of this form, only one of which inhabits Australia.

MUNIA FLAVIPRYMNA (*Gould*).

YELLOW-RUMPED FINCH.

THIS pretty Finch was discovered by Mr. Bynoe on the north-west coast of Australia. It is very like the *Donacola Castaneothorax*, both in structure, appearance, and habits, but has some specific differences, which caused Gould to transfer it from the genus *Donacola* in which he had placed it, and place it among the *Muniae*.

Its nest and eggs have not, to my knowledge, been discovered, and it is therefore impossible to say whether they resemble those of the other Finches or no.

The head is pale fawn-colour; back and wings, brown; under surface, buff; upper tail-coverts and rump, yellow; under tail-coverts, black; tail, blackish-brown; irides, light brown; bill, legs and feet, black.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{1}{2}$ inch; wing, $2\frac{1}{4}$ inches; tail, $1\frac{3}{4}$ inch; tarsi, $\frac{3}{4}$ inch.

Habitat North-west coast of Australia.

GENUS EMBLEMA (*Gould*).

THIS genus was established by Gould for a species which differs from all the other Finches in the size and shape of the bill, and in the character of its markings.

EMBLEMA PICTA (*Gould*).

PAINTED FINCH.

THE *Emblema Picta*, which is an inhabitant of the north-west coast, differs from the other Finches in having the bill longer and more pointed, and also in having the under part of its body beautifully marked, whilst the upper surface is rather plain. The fact that this species has a different shaped bill from the others would seem to imply that there is a difference in the nature of the food on which it subsists, but as yet this is only hypothesis.

Although since Gould's time other specimens have been obtained, very little has been gleaned of its habits.

The face and throat are deep vermilion, the base of all the feathers of the throat, black; crown of the head, all the upper surface, wings and tail, dark brown; chest and under surface, black, the flanks spotted with white; centre of abdomen, scarlet; rump, vermilion; irides, light brown; upper mandible, black; lower mandible, light red; feet, light brown.

Total length, $3\frac{1}{8}$ inches; bill, $\frac{9}{16}$ inch; wing, $2\frac{1}{4}$ inches; tail, $1\frac{5}{8}$ inch; tarsi, $\frac{5}{8}$ inch.

Habitat: North-west coast of Australia.



G.J. Broinowski Fecit

1. DONACOLA CASTANEOTHORAX. (Gould)

Chestnut-breasted Finch.

3. MUNIA FLAVIPRYMNA (Gould)

Yellow-rumped Finch.

2. DONACOLA PECTORALIS. (Gould)

White-breasted Finch

4. EMBLEINA PICTA (Gould)

Painted Finch.

